

1953

Factors related to participation in farmer cooperatives

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**FACTORS RELATED TO PARTICIPATION IN FARMER
COOPERATIVES**

by

George M. Beal

**A Dissertation Submitted to the
Graduate Faculty in Partial Fulfillment of
The Requirements for the Degree of
DOCTOR OF PHILOSOPHY**

Major Subject: Rural Sociology

Approved:

Signature was redacted for privacy.

~~In Charge of Major Work~~

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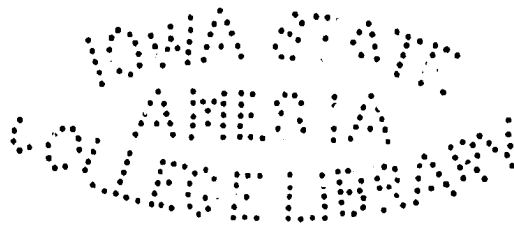
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INTRODUCTION

General Background of Social Participation Research

To foreign observers one of the most striking characteristics of American culture is our apparent penchant for the formation of special interest groups or formal voluntary associations. It has been said that whenever two or three Americans with like interests get together they start an association, choose a name, elect officers, adopt a constitution, appoint a committee and start to work. Though this to most Americans is a gross exaggeration, in the eyes of the foreign observer it may seem to be true when he compares his culture with our own.

Brief excerpts from two or three foreign writers will help illustrate their impressions of our special interest associations in these United States. After his visit to the United States in 1831 the French analyst, de Tocqueville, observed:

In no country in the world has the principle of association been more successfully used or applied to a greater multitude of objects, than in America.¹

Americans of all ages, all conditions, and all dispositions constantly form associations. They have not only commercial and manufacturing companies

¹Alexis de Tocqueville. Democracy in America. Vol. I. N. Y., The Century Co. 1862. p. 216.

in which all take part, but associations of a thousand other kinds--religious, moral, serious, futile, general or restricted, enormous or diminutive. The Americans make associations to give entertainments, to found seminaries, to build inns, to construct churches, to diffuse books, to send missionaries to the antipodes; they founded in this manner hospitals, prisons, and schools. If it be proposed to inculcate some truth, or to foster some feeling, by the encouragement of a great example, they form a society. Wherever, at the head of some new undertaking you see the government in France, or a man of rank in England, in the United States you will be sure to find an association. . . . Thus the most democratic country on the face of the earth is that in which men have, in our time, carried to the highest perfection the art of pursuing in common the object of their common desires, and have applied this new science to the greatest number of purposes.¹

Near the turn of the century, James Bryce wrote:

Associations are created, extended and worked in the United States more quickly and effectively than in any other country. In nothing does the executive talent of the people better shine than in the promptitude wherewith the idea of an organization for a common object is taken up.²

In more recent times the same opinions have been expressed by American writers with even more conviction than the early foreign writers. Speaking of the 20's, historians Charles and Mary Beard have written:

The tendency of Americans to unite with their fellows for varied purposes. . .now became a general mania as the means of communication and the routine of economic activity grew to be national in scope. . . . Thousands of new organizations were founded. . . .

¹Ibid., Vol. II. p. 129-130.

²James Bryce. The American commonwealth. Vol. II. N. Y., The Macmillan Co. 1910. p. 281-282.

It was a rare American who was not a member of four or five societies. . . .Any citizen who refused to affiliate with one or more associations became an object of curiosity if not of suspicion.¹

In 1951 the staff of Fortune magazine wrote about the tremendous amount of voluntary association activities of "The Busy, Busy Citizen":

Except for a few intellectuals who don't believe in 'joining,' and the very, very poor who can't afford to, practically all adult Americans belong to some club or other, and most of them take part in some joint effort to do good. This prodigious army of voluntary citizens, who take time from their jobs and pleasure to work more or less unselfishly for the betterment of the community, is unique in the world. For, whatever the silly rituals and earnest absurdities of some of their organizations, and the self-interest of others, the volunteers are always ready to work and fight for what they think is right.²

Sociologists in the United States have been actively engaged in studying this rather unique type of human togetherness. Two broad generalizations seem to be established by these researchers that are at least partially in conflict with some of the glittering generalities made above.

³
1. Many adults in the United States do not belong to these formal voluntary associations. These studies⁴ reveal

¹Charles A. Beard and Mary R. Beard. Rise of American civilization. Vol. II. N. Y., The Macmillan Co. 1930. p. 730-731.

²The Busy, Busy Citizen. Fortune. 43: 98. Feb. 1951.

³Adults are usually defined as those 18 years of age and older.

⁴For example see research of W. Lloyd Warner and Paul S. Lunt. The social life of a modern community. New Haven, Yale University Press. 1941. p. 392; Frederick A. Bushee. Social

that from 30 to 60 per cent of the adults belong to no formal associations.

2. The people who do belong to these associations participate in them in varying degrees. For instance, average attendance at meetings is probably only about 40 to 50 per cent of the membership.¹ There seem to be great differences in participation by social class in terms of the number of organizations belonged to and activities in which the members participate.²

The realization of these facts has caused great concern to many people, who see this lack of participation and the differential participation as a threat to the democratic way of life.³

organization in a small city. Amer. Jl. Soc. 51: 324. 1945; Harold F. Kaufman. Participation in organized activities in selected Kentucky localities. Ky. Agr. Exp. Sta. Bul. 528. 1949. p. 8; Harold F. Kaufman. Prestige classes in a New York community. N. Y. (Ithaca) Agr. Exp. Sta. Memoir 260. 1944. p. 15; and Herbert Goldhamer. Some factors affecting participation in voluntary associations. Unpublished Ph.D. Thesis. Chicago, University of Chicago Library. 1943. p. 19.

¹For instance see Bushee, op. cit., p. 221; Edmund De S. Brunner and J. H. Kolb. Rural social trends. N. Y., McGraw Hill Book Co. 1933. p. 263; and George M. Beal, Donald R. Fessler and Ray E. Wakeley. Agricultural cooperatives in Iowa: farmers' opinions and community relations. Iowa Agr. Exp. Sta. Res. Bul. 379. 1951. p. 194.

²For instance see Warner and Lunt, op. cit., p. 329; August B. Hollingshead. Elmtown's youth. N. Y., John Wiley and Sons. 1949. Ch. 5; Mirra Komarovsky. The voluntary associations of urban dwellers. Amer. Soc. Rev. 11: 686-698. 1946; and W. A. Anderson. Family social participation and social status self-ratings. Amer. Soc. Rev. 11: 253-258. 1946.

³See Bernard Barber. "Mass apathy" and voluntary social

Broadly speaking much of the participation research has been concerned with these two general areas: (1) the number and characteristics of the people who do or do not belong to formal voluntary associations, and (2) the degree to which members participate in activities of their associations and the characteristics of those who participate in varying degrees. This area of research has come to be called "social participation" research.

Historically, social participation research was concerned with the participation of people in formal voluntary associations. These associations are voluntary in the sense that the members can exercise a relatively free choice in becoming a member of the association. It is recognized that in some cases the member has little choice and is almost forced to join and in other cases the individual may want to join but may not be accepted.

The association is formal in the sense that it usually has explicit and definite purposes, rules and regulations which are usually codified and consciously imposed by the adoption of a constitution and by-laws. These rules and regulations usually state the conditions of entrance, membership and exit as well as rules governing the payment of fees and some degree of ritual procedure. The number, type and the method of election or appointment of officers and the duties of the

participation in the United States. Unpublished Ph.D. Thesis. Cambridge, Harvard University Library. 1948.

same are generally specified. Often there is a statement of the objectives of the association and the limitations as to the type and scope of activity in which the organization may engage. These formal associations usually have a recognized name, hold regular meetings at specified places and have planned programs and activities.

However, in recent years social participation research has also dealt with informal and semiformal group participation. The informal group is defined as having no explicit rules of entrance or exit, no officially elected officers or specified roles for members, no explicit statement of purpose, and no specific time or place of meetings or "planned" activities.¹ Activities with friends such as visiting, taking meal, shopping, going hunting and camping, changing work or tools, and borrowing or lending are usually classified as informal group activities.

In addition there has been some research done on what is called semiformal participation. This has been described in terms of attendance at public events such as baseball or

¹For example see the work of Otis Dudley Duncan and Jay W. Artis. Social stratification in a Pennsylvania rural community. Penn. Agr. Exp. Sta. Bul. 543. 1951. p. 35-37; Donald G. Hay. A scale for measurement of social participation of rural households. Rural Soc. 13: 285-294. 1948; Harold F. Kaufman. Prestige classes in a New York community. N. Y. (Ithaca) Agr. Exp. Sta. Memoir 260. 1944. p. 22; and Eugene K. Rowan. Some factors associated with membership in voluntary associations in a suburban community. Unpublished M. S. Thesis. Stanford University, California, Leland Stanford Junior University Library. 1948. p. 51-52.

basketball games, festivals, ¹parades, carnivals, farm sales, commencements and concerts.

With the addition of these new areas to what has been called social participation research the term has been broad-²ened to include studies of almost all social relationships. However, the focus of this study is participation in formal voluntary associations.

Though much of the past research has dealt with total participation in all formal voluntary associations grouped together there have been some attempts to classify these associations on a functional basis. Though strictly comparable³ classes have not always been used, in general, these associations have been classified as: religious, educational, fraternal, social, recreational, economic, patriotic, civic service, political, cultural, youth serving, and coordinating. Many associations include several of these activities, and in many cases it is difficult to place an organization in one of these classes even on the basis of their most important function.

¹See Duncan and Artis, op. cit., p. 36-37.

²For discussion on this point see Howard Beers. Social participation studies. Rural Soc. 8: 294-295. 1943 and Lee Coleman. Discussion of Donald G. Hay's article Social participation of individuals in four rural communities of the northeast. Rural Soc. 16: 135-136. 1951.

³For example see Bushee, op. cit., p. 218; Brunner and Kolb, op. cit., p. 242; and James J. S. Rossard and others. Introduction to sociology. Harrisburg, The Stackpole Co. 1952. p. 200-202.

Participation research has been carried on in many different parts of the United States.¹ However, there has been almost no attempt made to determine how generally applicable research findings from different geographic or sub-cultural areas in a range of rural urban situations are to other areas and situations.

This dissertation is concerned with a specific type of formal voluntary association within the general functional classification of economic formal voluntary associations. That specific type of association is farmer cooperatives. Though it was recognized that cooperatives may perform other functions it was assumed that their main function is economic. This assumption was borne out by the data in this study where over 68 per cent of the members defined their chief reason for joining as being mainly economic, and 95 per cent of the members mentioned economic benefits as their greatest benefits from their cooperatives.

As indicated above, past research has dealt mainly with general formal participation, that is, participation in all classes and subtypes of formal organizations analyzed together. Only limited research has dealt with how generalizations concerning general participation apply to a single functional class or type within that class.

¹See Appendix for description of studies including locus of the main studies cited in this dissertation.

In general it has not been determined to what degree or if generalizations made from individual studies done in many different geographic and subcultural areas in a range of rural urban situations and from a wide variety of functional classes of formal voluntary associations apply to a single type of formal voluntary association.

General Background of Cooperative Research of Sociological Nature

The limited research that loosely might be termed sociological that has been done in the field of farmer cooperatives has in the main utilized three main approaches: (1) the study of opinions and attitudes toward cooperatives, (2) the study of the knowledge of facts about cooperatives and (3) the study of member participation in cooperative activities. The first two have received the major share of attention.

¹
Major emphasis in the first area--opinions and attitudes --has centered around attempts to measure member satisfaction with their cooperatives. Many facets of satisfaction have been explored, such as satisfaction with prices, services, quality of products, management, boards of directors, policies, member roles in cooperatives, financing, credit, information

¹Specific studies and their related findings will be cited in detail in the section on Results dealing with the relation of participation to satisfaction.

to members and expectations when joining cooperatives. Opinion questions have also been asked in such other areas as the role of cooperatives in the market and in the economy, the expansion of cooperatives, possible policy decisions and responsibilities of members.

In the second area,¹ the knowledge of facts, attempts have been made to measure how well members were informed about such facts as: number of members in the cooperative, when organized, services offered, how one becomes a member, names of officers and managers, salaries of employees, location of headquarters of cooperatives, names of cooperative publications, methods of financing, credit policy and specific questions concerning constitution and by laws.

The third area, that of member participation in cooperative activities, has been treated only incidentally in research.² The factors mentioned in connection with satisfaction and knowledge of facts have been related to such elements of participation as joining cooperatives, attending meetings, holding office, voting on policy and patronizing cooperatives. However, these elements of participation have been given secondary importance to the measurement of satisfaction and knowledge of facts.

¹Specific studies and their related findings will be cited in detail in the section on Results dealing with the relation of participation to knowledge of facts.

²Specific studies and their related findings will be cited in detail in the section on Measurement of Social Participation.

Participation is very important. There must be a minimum of human interaction and collective action for the formation of the group and at least this minimum must continue for and during the existence of the group. Some persons must participate to the extent that a group will be gotten together, some collective action taken to organize the association, legal status is obtained, money will be raised to finance the activity, decisions made in relation to policy and the members must patronize the association enough to make it worthwhile form themselves to continue.

Some members in the present study were quite satisfied with almost every facet of their cooperative's activity. Yet, they did not help finance (other than the original membership fee), they did not help determine policy, and did not patronize it. A cooperative cannot continue to exist with this type of "satisfied" member.

Some members seem to know almost all the facts about their cooperative. Yet, they did not help finance, determine policy, or patronize their association. A cooperative cannot exist solely on the basis of this type of knowledge. Knowledge of facts alone is not the ultimate measure of enlightened or effective participation in cooperatives.

These factors--knowledge of facts and satisfaction--become really important only when it is known that they lead to participation. Satisfaction and understanding of facts are mainly means to an end in view. That end in view is

participation. That these factors lead to participation is an assumption that has continually been made in past research without a very systematic attempt being made to validate it. It is quite possible that there are other equally or more important factors affecting participation. It may also be found that these two are the most important. Whether or not they are important needs to be established.

However, it is also recognized that participation may take place without rational thought. Some members may be active participants and not have much real knowledge or understanding of the cooperative or its functioning and without consciously assuming the responsibility of membership. It might not be to their best economic interest to participate at all or to the degree to which they may be now participating. Though some people are willing to accept and strive for "blind loyalty" many cooperative leaders and educators¹ are coming to put a higher value on rational participation.

Thus there is pointed up a fourth area of cooperative research in which almost no work has been done. That area deals with the understanding of basic cooperative theory and principles as a basis for rational participation and attitudes

¹Though some people may accept participation as the end objective of cooperative activity the true educator cannot. The educator must impart factual information and stimulate clear thinking and develop understanding about cooperatives, their nature, methods of organization, functioning, and their role in the economy so that farmers, cooperative members, leaders and officials and the general public might develop understandings upon which rational decisions regarding

toward cooperatives. Though it is not the main focus of this dissertation basic understanding has been approached two ways: (1) an attempt has been made to include some items in the participation score designed to ascertain the existence or measure the extent to which rational thought (in the economic sense) is a part of participation and (2) a score based on understanding of basic cooperative theory and principles has been developed and each member scored. Member participation has been analyzed in relation to this basic understanding.

However, the major focus of this dissertation is the study of member participation in cooperative activities--rational or otherwise. Personal and social characteristics of members, opinions, satisfaction, understanding of facts, and understanding of theory are analyzed in terms of whether or not and to what degree they are associated with participation in cooperatives.

There is a felt need for research in this area of participation in farmer cooperatives by the part of cooperative leaders and officials in Iowa. It is recognized that there must be at least a minimum of participation if cooperatives are going to exist. Lack of participation and differential participation are problems of constant concern to members,

participation or nonparticipation in cooperatives and public policies affecting cooperatives can be made. The educator is interested in meaningful or rational participation--not merely participation for participation's sake.

boards of directors and managers of cooperatives generally. Many questions are being constantly raised: "Why don't more farmers join?" "Why don't members patronize more?" "Why won't members help finance?" "What are the characteristics upon which the active and the inactive members in the cooperative can be differentiated?" "Are the activities being carried on by the cooperative to get more active participation of members successful?" These and many other questions revolving around member relations are being raised.

These questions may have increased importance for Iowa. Iowa ranks among the first five states in the nation on the basis of the number of cooperatives, number of members and volume of business done with cooperatives. It is estimated that at least 70 per cent of Iowa farmers belong to one or more cooperatives. These marketing and purchasing cooperatives transact about a half billion dollars of business annually. Bulletin 379, Agricultural Cooperatives in Iowa: Farmers' Opinions and Community Relations, revealed that the general level of some forms of participation in Iowa cooperatives was very low. It pointed out that there were great differences in member understanding, opinions and participation in cooperatives. This dissertation attempts to answer more in detail some of the questions mentioned above, as well as some of the questions raised by Bulletin 379.

Purposes

Thus the purposes of this dissertation may be described in the following terms.

Major purpose:

To determine some of the personal, social and economic characteristics of people and the characteristics of cooperatives and communities that are associated with different degrees of participation of people in farmer cooperatives.

Minor purposes:

1. To determine the degree to which research findings and generalizations from other geographic and subcultural areas, ranging from rural to urban situations and from formal voluntary associations in general, or sub classes of formal voluntary associations, apply to a specific type of formal voluntary association in a given geographic area, farmer cooperatives in Iowa.
2. To suggest and test new hypotheses that may be useful to other research workers in the field of cooperatives or in general social participation research to the end that a more systematic body of knowledge may be built up dealing with social participation.

The following general proposition is suggested in relation to the major objective and will be supported or not

supported by the more specific hypotheses to follow. There will be significant differences in participation in cooperatives when people are compared on the basis of selected personal, social and economic characteristics.

The following proposition is suggested in relation to the first minor objective: Research findings and generalizations from other geographic and subcultural areas, in a range of rural to urban situations and from formal voluntary associations in general, or subclasses of formal voluntary associations will apply to a specific type of formal association in a given geographic area, farmer cooperatives in Iowa.

The major assumption involved in the dissertation is that methods and devices can be developed for measuring the degree of participation in cooperatives and that data can be obtained on the personal, social and economic characteristics of people and the characteristics of cooperatives and communities and analyzed in a scientific manner.

REVIEW OF LITERATURE

This section of the dissertation will not conform to the customary pattern of review of literature. It is generally agreed that the purpose of the review of literature is to acquaint the research worker with background, findings and methods in a given area of research so that he may scientifically delineate and approach his specific problem. This step has been taken in this dissertation. However, this author feels that the insights and data gained from the review of literature can more appropriately be placed in other sections of the dissertation than in the usual review of literature section.

Perhaps the first function that a review of literature should perform is to help the author delineate his research problem. The review should give insights into whether or not this is a real problem, or whether other research has already handled this problem adequately. The review may point up areas where past research has been adequate, but also might give insights into additional areas that need more research, or in which there has been very little or no research. The review of literature for this dissertation has given such insights. Basically these insights have been included in the introduction to the dissertation and the first section of the chapter on results.

A part of the intelligent approach to one's problem is to

review the literature for methodology that has been productive or that might be adapted to the specific problem at hand. This has been done. The findings from the review of literature in relation to methodology will be found in the section on methods and procedures. In particular, past attempts to develop participation measures were reviewed and related to the development of a participation score for cooperative members.

Another step in any review of literature is to review and evaluate the logic behind the setting up of hypotheses used in past research. In addition past hypotheses and generalizations as well as suggested hypotheses for testing can also be obtained from the review. This has been done. However, rather than include these findings here in the review of literature they will become an integral part of setting up the many hypotheses to be tested and will be found in the dissertation where the specific hypothesis is tested.

It is felt that the author has a responsibility to his reader to give some minimum information about the research cited so the reader can judge the adequacy and validity of the data cited. An attempt has been made to meet this responsibility by including a short descriptive paragraph with each important citation in the appendices. For each research cited the following information, if available, has been given: objectives of the study, sampling methods, number and general characteristics of the respondents, date of field work, locale of the study, how participation was measured and the factors

that were analyzed in relation to participation. This information is to be found in the appendices.

One additional function of the review of literature section may be to bring the reader up to date on research in this field. An attempt has been made to do this in the broad field of participation research in the introduction. The section on methodology will trace the development of measures for both general and cooperative participation.

Thus it should be evident that the review of literature has been completed by the author. However, as indicated above, the data and insights gained from the review have been placed at the various designated places in the dissertation in such a manner that it is hoped that the review of literature will more adequately perform its true function.

METHODS AND PROCEDURES

Sample

The sample used in this dissertation was gathered for three main purposes: (1) to determine the understanding, opinions, actions and participation of Iowa farmers toward cooperative principles, practices, policies and toward cooperatives in general; (2) to determine the relationships between these understandings, opinions, actions and participation and other selected personal and social characteristics of the farmers; (3) to explore the relationships between cooperatives and the communities in which they are located. The present dissertation is concerned mainly with a limited segment of the second purpose, that is, the relation of participation to selected personal and social characteristics of farmers.

Four main factors were thought to bear a direct relation to the three main purposes stated above. These factors were taken into consideration in choosing the population to be studied.

The first factor was size of community. It was felt that the size of the community and its center might affect the cooperative in its relationship to its members and to the community as a whole. Iowa townships are reasonably uniform in geographic size and in number of farm population so that variations in township population generally reflect variations in

the population of centers in the township. The size of communities in the state also bears a significant relationship to the size of centers. Since the data used to measure the four factors were available by townships and not in all cases for incorporated community centers, township data were used. In choosing the sample communities, upper and lower limits were set to include townships in which there were incorporated community centers with populations between 250 and 5,000. The upper limit was set for three main reasons: (1) the cost involved in doing a comprehensive community analysis of communities larger than 5,000 would have been prohibitive, (2) the economic and social relations within a larger community would probably have been so complex that an attempt to measure the effect of a single organization such as a cooperative would have been difficult, and (3) it was felt that the exclusion of these few larger communities would not impair to any marked degree the picture of rural Iowa communities and their cooperatives. The lower limit was set for two main reasons: (1) to assure a minimum-sized community organized around several institutions, not a single institution, which would facilitate comparison of communities in the sample, and (2) to assure a sample for which certain secondary data were available. The data actually used were populations of townships, 1940, in which the community centers of the prescribed size were located.

The second factor was the nationality background of persons living in the community. It was thought that there

might be a difference in understanding of and opinions about cooperatives between Iowa farmers living in communities with a high percentage of foreign-born or native-born of foreign or mixed parentage and those living in communities composed mostly of residents with native-born parents. The data used were the percentages of the total population which were foreign-born and native-born of foreign or mixed parentage, for townships in 1930, which was the last year for which such data were available.

The third factor was level of living. It was felt that level of living might affect the presence of cooperatives in communities as well as membership in cooperatives and understanding of and opinions about cooperatives. The data used were the farm operator level of living indexes for Iowa townships in 1945.

The fourth factor was the number of organized cooperatives doing business in the community center. The main reason for the use of this factor was to assure a sample of communities that would provide an opportunity to compare communities in which there were cooperatives with communities in which there were no cooperatives. It was also desired that communities with different numbers of cooperatives in their centers be included in the sample.

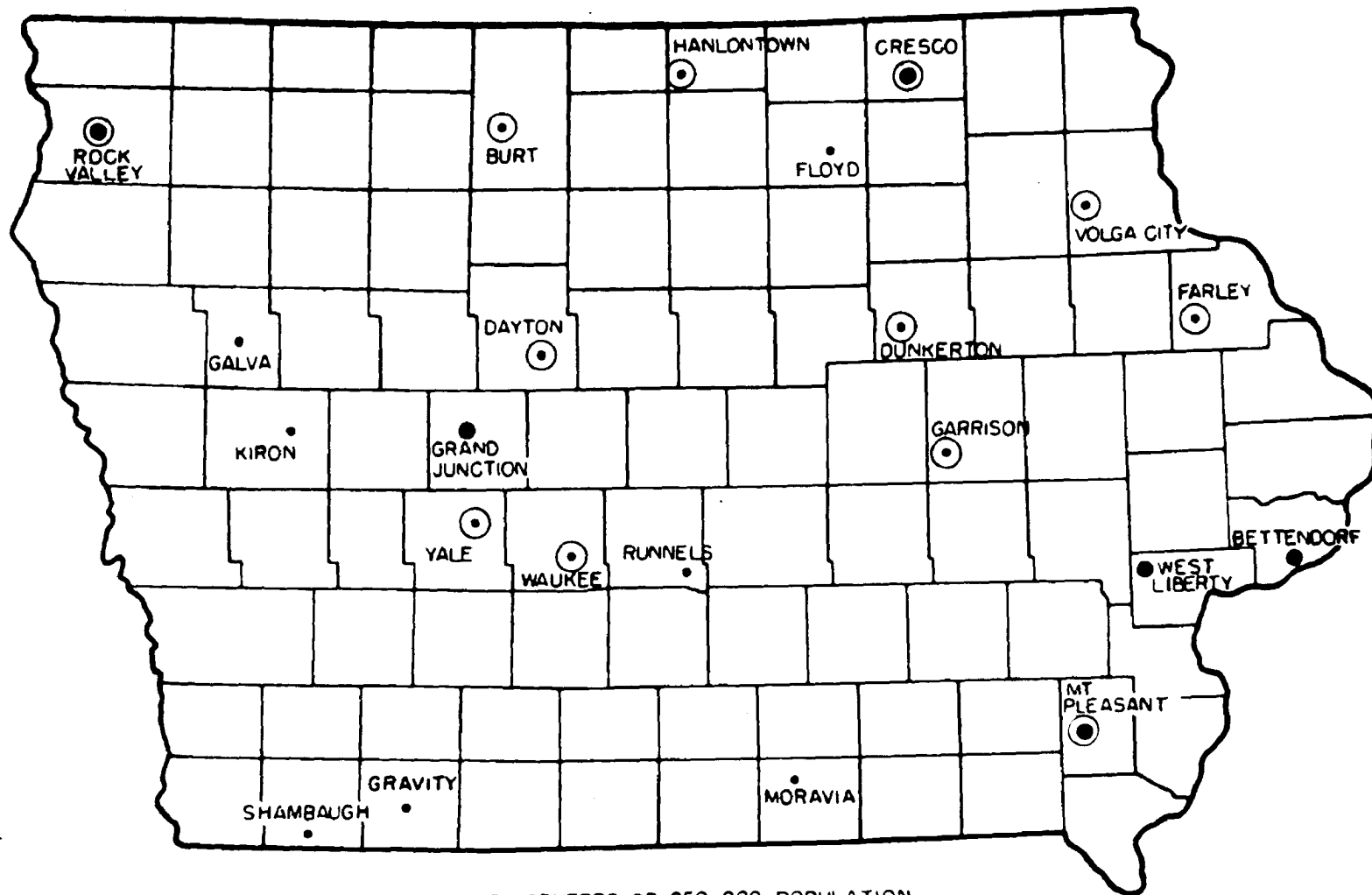
All the Iowa communities whose centers were incorporated places with a population in 1940 between 250 and 5,000 were classified according to the four factors mentioned: (1)

population, (a) 250 to 1,249, (b) 1,250 to 5,000; (2) per cent foreign born for the township in which center was located, (a) less than 24 per cent, (b) 24 per cent or greater; (3) township level of living, (a) 166 and below, (b) 167 and above; and (4) number of cooperatives in the center, (a) none, (b) one to three, and (c) four or more. This resulted in 24 classes ($2 \times 2 \times 2 \times 3$), two of which were empty and were combined with a third. Within each final class one community center was taken at random, there being a total of 22 in the sample. (See Figure 1.) This procedure of sampling insured a higher frequency of association between community characteristics and the four factors than in the case of a completely random sample. It also has the property that the probability that each place in the population occurs in the sample is known.

Field Procedure

Having chosen the 22 villages and towns that were to comprise the sample community centers, actual community boundaries had to be determined. This was accomplished by first referring to the grocery trade area map of the State of Iowa prepared in 1935 by the Iowa State Planning Board. These boundaries were closely checked with local grocers and other community members at the time of this study. The judgment of these people was substantially confirmed at the time the schedules were taken.

Within each community 25 farmers were interviewed. These



• COMMUNITY CENTERS OF 250-999 POPULATION

● COMMUNITY CENTERS OF 1000-5000

○ COMMUNITY HAVING AT LEAST ONE COOPERATIVE IN THEIR CENTER

Figure 1. Location, size and type of communities in the sample.

interviewees were chosen on the basis of a systematic ordering scheme in which the farmers were ordered on the basis of their geographic location in each surveyed section within the community boundaries. Within this systematic ordering every n th farmer was drawn, the n being determined by dividing the number of farmsteads in the given community by 25, the number of interviewees desired. The first interviewee drawn in each community was determined by random number within the interval n . Members of cooperatives and nonmembers alike were interviewed but different schedules were used for each.

This procedure resulted in 546 farmers being interviewed. There were 278 nonmembers and 268 members. The 268 members belonged to 83 different cooperatives located in 65 different communities.

Two interviewers, one of which was the author, took most of the schedules. The study had a high degree of acceptance with the farmer population in the sample. There was less than one per cent refusal. The length of the schedule, particularly the member schedule, made it necessary to follow the schedule closely throughout the interview. However, the interviewers found that this did not prevent them from developing and maintaining a high degree of rapport with the interviewee. The interviewers carefully refrained from expressing their own attitude toward cooperatives, both during and after the interview, in order that the immediate interviewee as well as other farmers in the community with whom the interviewer would later

come in contact would not modify responses in any way. The interviewers recorded their impressions of general characteristics and attitudes of the interviewee that they thought might make answers to the formal questions more meaningful.

Introduction to the Analysis of the Data

The data were coded and punched on IBM cards. Straight tabular or survey analysis was completed with very little cross classification or determination of significant difference being attempted. As a result of this analysis Agricultural Experiment Station Bulletin 379, Agricultural Cooperatives in Iowa: Farmers' Opinions and Community Relations, was published in 1951.

Additional steps were taken to make it possible to more adequately analyze the data in terms of the second general objective of the project--determining the relationship between the understanding, opinions, actions and participation and other selected personal and social characteristics of farmers. An attempt was made to combine the data on understanding, opinions, actions and participation into logical classes and reduce them to quantitative terms. Thus it was hoped that the analysis would be strengthened and at the same time simplified. Four quantitative measures or scores were developed that attempt to measure: (1) member understanding of basic cooperative theory and principles, (2) member knowledge of facts

about his cooperative, (3) member satisfaction with his cooperative, and (4) member participation in his cooperative. It is with the last score, participation, that this dissertation is mainly concerned. The development of the score will be explained more in detail in a subsequent section.

Much of the data on members had to be recorded and the four scores for each member were tabulated. Some additional data were secured from the cooperatives in the sample on their educational programs. All of these data were punched on IBM cards. The data were then tabulated and appropriate statistical techniques of Chi square, analysis of variance, correlation and regression were used to: (1) determine the significant differences between members and non-members when analyzed on the basis of selected characteristics and (2) determine personal and social characteristics of people, characteristics of cooperatives and communities that were associated with differential participation in cooperatives as measured by the participation score.

Measurement of Social Participation

Sociologists have systematically concerned themselves with the phenomena by means of which people associate with each other and share in group activities. A large share of this research has come to be called social participation research. As indicated in the introduction, most of the research has

dealt with formal voluntary associations and with general participation rather than participation in a specific type of formal association. A first step in developing quantitative measures of participation in cooperatives might well be the examination of past attempts to measure social participation.

Stuart Chapin is one of the first to attempt systematically to describe and quantify social participation. As early as 1924 Chapin wrote,

There is a direct correlation between the number of groups that the average person may belong to and the intensity of his participation in each group activity as indicated by such objective facts as regularity of attendance, membership on committees and financial support.¹

Here Chapin suggests measurement of such objective participation facts as regularity of attendance, committee memberships, and financial support.

In 1926 Chapin suggested that,

A rough measure of the volume of social stimuli may be had by counting the number of different activities an individual participates in (within a unit of time) with supplementary facts on the number of executive positions held within range of these activities.²

Chapin also suggests that intensity of participation in group activity is indicated by the number of executive or administrative positions held such as president, vice president,

¹F. Stuart Chapin. Leadership and group action. J1. Applied Soc. 8: 141-146. 1924. In F. Stuart Chapin. Measuring the volume of social stimuli: a study in social psychology. Social Forces. 4: 179-195. 1926. p. 485.

²Ibid., p. 479.

secretaries, treasurer, membership on cabinets, councils and committees.¹

About this same time Hawthorn reported work done previously in which he had attempted to measure socialization in terms of "exposures, participations or social contacts." Hawthorn defined social contacts as the exposure or contact of a person, for approximately one hour, to an event or situation which has socializing value.² The main contribution of Hawthorn is participation in terms of the amount of time. He dealt with participation, or social contacts, in various types of activities such as religious, educational, musical, social and recreational.

Hypes reports the use of a similar device in 1927. He calls it the "individual-hours of attendance" and defines it as simply the clock-hours of time an individual or group spends in a given social activity. Hypes stated that the real significance of the individual-hour as a unit of measure rests essentially upon the significance of the time element in primary group associations. He stated that,

Modern education and modern methods of transportation and communication have so widened the average individual's socio-economic horizons and have so multiplied his interests and wants, that the group activity that can outbid all others in commanding his physical presence becomes a significant indicator, not only of the nature of his

¹Ibid., p. 489.

²Horace Boies Hawthorn. The sociology of rural life. N. Y., Century Co. 1926. p. 71-78.

interests, but of his standard of ethics as well. . . . Voluntary personal attendance, then, shows choice of activity, and time voluntarily spent in such activity measures interest therein more accurately and objectively, perhaps, than any other single measure yet devised.¹

In 1928 Chapin reported the quantification of several² elements of participation. About 40 executives in the social agencies of the Twin Cities were asked to put the following elements in their order of the importance as evidence of participation in group activity: membership, contributions, attendance, committee membership and official positions in clubs, organizations, and community activities. Replies of these executives showed a clear majority in favor of the following order beginning with the least important evidence of participation in group activities: (1) membership, (2) attendance, (3) contributions, (4) membership on committees, and (5) positions as an officer. Chapin used this order and assigned arbitrary weights corresponding to the numbers above to³ each element of participation.

¹James Lowell Hypes. Social participation in a rural New England town. N. Y., Bureau of Publications, Teachers College, Columbia University. 1927. p. 7-8.

²The word "element" is used here to describe the component parts of participation. Such terms as indices, traits, characteristics, dimensions, criteria as well as element have been used to describe the component parts that go to make up participation scores. The term element is thought to be most descriptive by the author.

✓ ³F. Stuart Chapin. A quantitative scale for rating the home and social environment of middle class families in an urban community: a first approximation to the measurement of socio-economic status. Jl. of Ed. Psychology. 19: 100-101.

Hay obtained the same ranking as Chapin when he asked 25 leaders in Oneida County, New York, to rate these same elements of participation in 1947.¹

These elements of membership--attendance, contributions, membership on committees and position as an officer--as used and weighted by the Chapin scale have been used by many researchers since their development.²

Others have used the same elements but have weighted or used them in a slightly different way.³

In 1929 Kirkpatrick and others developed a participation index. They stated that participation in organization activities consists of five forms or elements,

These are affiliation, in terms of regular contacts; attendance, in terms of number of meetings or total hours per year; contributions in the form of money, food and appearance on programs;

1928. See F. Stuart Chapin. Social participation and social intelligence. Amer. Soc. Rev. 4: 158. 1939. for a discussion of the reliability and validity of the scale.

¹Hay, A scale for the measurement of social participation of rural households, p. 286.

²See for example Ibid., p. 286; Selz C. Mayo and C. Paul Marsh. Social participation in the rural community. Amer. J. Soc. 55: 243-248. 1951; Hay, Social participation of individuals in four rural communities of the Northeast, p. 127-136; Anderson, Family social participation and social status self-ratings, p. 253-258; and W. A. Anderson and Hans H. Plambeck. The social participation of farm families. N. Y. (Ithaca) Agr. Exp. Sta. Dept. Rural Soc. Mimeo. Bul. 8. 1943.

³See for example A. R. Mangus and Howard R. Cottam. Level of living, social participation and adjustment of Ohio farm people. Ohio Agr. Exp. Sta. Bul. 624. 1941; and D. E. Lindstrom. Forces affecting participation of farm people in rural organization. Ill. Agr. Exp. Sta. Bul. 423. 1936.

committee work, serving on a committee for one or more meetings; and leadership, the holding of an office during the year.¹

An index was developed from the averages computed for all the individuals for the different elements of participation. The average for each element was used in obtaining a common base, a participation level or plane from which the relative variation of the corresponding averages for separate groups of families could be ascertained. Some slight changes and roundings gave the following values: 100 points for each affiliation with an organization, 100 points for each meeting attending, 100 points for each contribution, 25 points for each service on a committee and 75 points for each office held.²

There have been other attempts to measure participation. More recently Lindstrom again attempted measurement on the basis of the amount of time people spent in participation.³ Though he does not go into detail, Kaufman suggests that, "Perhaps the best single index of participation would be membership classified as to degree of activity such as inactive, moderately active, very active."⁴

¹E. L. Kirkpatrick and others. Rural organizations and the farm family. Wisc. Agr. Exp. Sta. Res. Bul. 96. 1929. p. 8-9.

²Ibid., p. 8-9.

³Lindstrom, op. cit., p. 105-107.

⁴Kaufman, Participation in organized activities in selected Kentucky localities, p. 42.

Goldhamer used the following as his elements of participation: number of associations belonged to, frequency of attendance, number of associations in which officerships are held, length of time memberships have been held, amount paid annually in association dues and fees, and type of association belonged to.¹

Mayo and Marsh have recently² reported on research that may suggest yet another element of participation. They have analyzed participation from the point of view of the locality group. They have measured the varying degrees of participation within the locality of residence and outside the locality of residence both in terms of neighborhoods and communities. They have related selected personal and social characteristics to this participation element of locality.

One of the most recent measuring devices was developed by Duncan and Artis. They state that it is not a rigorously standardized and calibrated instrument and describe it as a device for rough quantification.

For each organization score:
0 if no history of membership
1 if member in the past but have now dropped membership

¹Goldhamer, Some factors affecting participation in voluntary associations, p. 14.

²Mayo and Marsh, op. cit., p. 44-45. This element may be important in cooperative participation as it relates to participation in cooperative activities within the community or immediate trade area of the local cooperative as well as participation outside the community or trade area in the regional

- 2 if now a member but has not attended meetings in the last year
 - 3 if now an active member and had attended within the last year
 - 4 if a past officer of the organization but now inactive
 - 5 if a past officer and still active and had attended within last year
 - 6 if an officer in the present year
- The total score for an individual is the sum of the scores for all organizations.¹

The Chapin and other scales have been used mainly to attempt to measure social participation in formal voluntary associations in general. However, it is quite possible that when attempts are made to measure participation in specific formal voluntary associations different devices or weights may need to be developed or old devices may have to be modified. These criteria for measurement may be adequate for some types of formal voluntary associations within the broad classification of economic formal voluntary associations. They probably would be adequate to measure participation in say a chamber of commerce. However, there may be some other types of associations within this broad economic classification for which the existing elements and scales would not be adequate. For instance Rose discussed the elements that constitute participation in labor unions in the following terms:

or wholesale cooperative. These may complement each other or may be in conflict with each other. The characteristics of those who participate in the community or trade area may differ from those who participate outside.

¹ Duncan and Artis, op. cit., p. 35.

Participation is measured by members' statements specifying their attendance at union meetings, speaking up at these meetings, estimation of interest in union activities, preferences for attending meetings as compared to attending non-union social functions, supporting negotiating committees during periods of contract negotiation, reading and understanding the contracts, and serving on picket lines during time of strike.¹

There seem to be additional elements of participation that apparently apply to labor unions.

This leads to the questioning of the adequacy of existing social participation measuring devices when applied to farmer cooperatives.

A prior point that probably needs consideration is an examination of research on farmer cooperatives to determine what elements have been used to measure participation in cooperatives. The most obvious element in this area had dealt with membership or non-membership in cooperatives. Numerous studies have discussed this aspect of participation.²

¹Arnold M. Rose. Union solidarity. Minneapolis, Univ. Minn. Press. 1952. p. 46.

²J. K. Stern. Membership problems in a milk marketing organization. Penn. Agr. Exp. Sta. Bul. 256. 1930; J. K. Stern. Membership problems in farmers' cooperative purchasing associations. Penn. Agr. Exp. Sta. Bul. 268. 1931; J. K. Stern and H. F. Doran. Farmers support of cooperatives. Penn. Agr. Exp. Sta. Bul. 505. 1948; M. E. John. Factors influencing farmers' attitudes toward a cooperative marketing organization. Penn. Agr. Exp. Sta. Bul. 457. 1943; W. A. Anderson and Dwight Sanderson. Membership relations in cooperative organization. N. Y. (Ithaca) Agr. Exp. Sta. Dept. Rural Soc. Mimeo. Bul. 9. 1943; Duane Gibson. Membership relations of farmers' marketing organizations in New York state. Unpublished Ph.D. Thesis. Ithaca, N. Y., Cornell University Library. 1940;

Attendance at meetings is an element of participation that has also been used.¹ A third element, more or less unique to cooperatives, is patronage or per cent of business done with the cooperative, and some studies have dealt with this.² Another type of activity that may be closely related to participation is "boosting the organization". Two studies have dealt briefly with this element.³ The author has not been able to find any research on farmer cooperatives that deals directly with financial contributions as an element related to differential cooperative participation.⁴ Voting

and J. Edwin Losey. Membership relations of cooperative purchasing associations. Unpublished Ph.D. Thesis. Ithaca, N. Y., Cornell University Library. 1940.

¹See all authors listed directly above and in addition: A. W. McKay. Members knowledge and attitudes--calavo growers of California. U. S. Dept. Agr., Farm Credit Adm. Circular C 137. 1950 and Gerald E. Korzan. Member attitude toward cooperatives. Ore. Agr. Exp. Sta. Bul. 509. 1952.

²See Stern, Membership problems in farmers' cooperative purchasing associations; Stern and Doran, op. cit.; Anderson and Sanderson, op. cit.; Losey, op. cit.; and George F. Henning and Earl B. Poling. Attitudes toward cooperative marketing. Ohio Agr. Exp. Sta. Bul. 606. 1939.

³Anderson and Sanderson, op. cit., and Stern, Membership problems in farmers' cooperative purchasing associations.

⁴For a general discussion of this element from the point of view of different cooperatives, see Frank Robotka and Gordon C. Laughlin. Cooperative organization of Iowa farmers' creameries. U. S. Dept. Agr., Farm Credit Adm. Bul. 14. 1937.

on major policy decisions has also been treated as a dimension¹ of participation.

However, despite the number of studies related to these elements of participation in cooperatives there has been almost no attempt to integrate these into any kind of score or meaningful whole. In most cases these elements have been used as the independent variable to predict member understanding of facts or satisfaction. In all cases the elements of participation have played a minor role in the total analysis.

Stern in his 1948 study probably had done the most complete job of dealing with these elements. He utilized measures that dealt with per cent of business done, meeting attendance, holding office, voting on policy decisions and whether or not the member helped organize the cooperative. Though Stern did not attempt to combine these dimensions, he found that, "In almost every case there was a positive correlation between the use which members made of their cooperatives and their participation in other membership activities of the organization."²

In brief summary, the review of literature shows that the following elements have been used in past conceptualization and research in analyzing participation in formal voluntary associations:

¹See Stern and Doran, op. cit.

²Ibid., p. 11-13.

1. membership in the past but now dropped
 2. officership in past but now dropped membership
 3. membership in the organization at the present time
 4. whether or not member helped organize the association
 5. frequency of attendance at meetings
 6. contributions of money
 7. contributions of food
 8. appearances on programs
 9. speaking up at meetings
 10. membership on committees, councils, cabinets, etc.
 11. chairmanship of committees, councils, cabinets, etc.
 12. holding office (apart from those above)
 13. amount of time spent on work related directly to the association
 14. length of time membership has been held
 15. serving on picket line
 16. patronizing the association (in the sense of buying or selling at coop)
 17. voting on major policy decisions
 18. boosting the organization (probably a type of informal participation)
 19. participation within or outside of locality of residence
- 1

Possible Extension of the Area of Measurement

Duncan and Artis have brought a new concept into social participation research. They are in basic agreement with other research workers that participation is a matter of degree or on a continuum from no participation to a high degree of participation. However, most of the past research has set actually becoming a member as one end of the continuum or the threshold over which people must pass before they are considered to be participating in a measurable fashion. Duncan and Artis suggest in their score that past membership may be a degree of participation and past officership a higher degree of participation. This suggests the lengthening of the continuum to include a wider range of differing degrees of participation.

This concept is given real meaning when one analyzes the sample with which this dissertation deals. The vast majority of farmers have heard of cooperatives and most of them have formed attitudes about them. In terms of the answers given on the schedules it might be assumed that these members may be placed at various points, or areas, along the continuum. They have heard much or little about the cooperatives and they have formed different attitudes and in some cases have committed certain actions in relation to the cooperatives.

It might be possible to place these people on the continuum on the basis of "covert" as well as "overt" participation.

Ninety per cent of the farmers interviewed said that they were not opposed to cooperatives. However, ten per cent said they were. The following table gives the reason that the ten per cent, or 29 members, were opposed. These reasons are listed

Table 1. Reasons given by nonmembers for being opposed to cooperatives.

| | Number | Per cent |
|--|--------|----------|
| Total number of nonmembers | 278 | 100.0 |
| Number who said they were not opposed to cooperatives | 249 | 89.6 |
| Number who were opposed to cooperatives | 29 | 10.4 |
| Reasons for being opposed | | |
| 1. Cooperative controls entire local market - monopolistic | 11 | |
| 2. Opposed, but no reason was given | 6 | |
| 3. Cooperatives do not pay fair share of taxes | 4 | |
| 4. Afraid of the financial structure of cooperative | 2 | |
| 5. Do not like cooperative management | 1 | |
| 6. Farmers should not go into business | 1 | |
| 7. Farmers should form only purchasing cooperatives | 1 | |
| 8. Cooperatives are too much like communism | 1 | |
| 9. Cooperatives are too much like socialism | 1 | |
| 10. Cooperatives can operate no more efficiently than non-cooperatives so should not be formed | 1 | |

to indicate that people may be placed on the continuum even within this general segment, opposed to cooperatives, of the continuum.

Although only 10 per cent said they were opposed to cooperatives, 23 per cent said they would not join the cooperative under any circumstances. Five per cent did not know whether they would join a cooperative or not. The remaining 72 per cent said they would join a cooperative and the circumstances under which they would join are listed in Table 2.

Eighteen per cent of those farmers who were not at the present time members of cooperatives had been members in the past. Their reasons for dropping out are not known.

At the time of the study 31 per cent of the nonmembers were doing some business with a cooperative.

Thus there may be a broad area of participation before the actual threshold of present membership is passed. Just where these various degrees of "participation" should be placed on the continuum is not known for sure but the following figure may illustrate the general conceptual framework suggested.

It is recognized that within each of these general areas on the continuum there will probably be differential participation. Those who are opposed to cooperatives might be placed in relation to the reason given for the opposition and the intensity of the feeling. The same consideration of degree would also apply to those who are favorable to cooperatives.

Table 2. Stated circumstances under which nonmembers would join a cooperative.

| | Number | Per cent |
|---|--------|----------|
| Total nonmembers | 278 | 100.0 |
| Would not join cooperative under any circumstances | 63 | 22.7 |
| Do not know if they would join a cooperative | 15 | 5.4 |
| Would join a cooperative under the following circumstances | 200 | 71.9 |
| 1. If available and managed right | 58 | |
| 2. If they were sure it would save them money | 44 | |
| 3. Were planning to join | 18 | |
| 4. Might join, but could not state circumstances | 12 | |
| 5. If the cooperatives were more convenient | 11 | |
| 6. If the individual dealt in larger volume | 11 | |
| 7. If the cooperative was really needed | 9 | |
| 8. If non-cooperative businesses got "out of line" | 8 | |
| 9. If the cooperatives carried what he wanted to buy | 5 | |
| 10. If the cooperative approached him | 5 | |
| 11. If couldn't purchase supplies any place else | 4 | |
| 12. If did not already have personal relationship with non-cooperative dealer | 4 | |
| 13. If the members were not liable for debts of the cooperative | 3 | |

Table 2. (Continued)

| | Number | Per cent |
|---|--------|----------|
| 14. If did not feel obligated to trade there 100 per cent | 3 | |
| 15. If knew more about cooperatives | 3 | |
| 16. Other | 2 | |

Identity or "we-feeling" may also be a covert aspect of participation.

The lower range of the participation continuum suggested here may be of real importance to cooperative leaders interested in obtaining additional members and having general acceptance of the cooperative as a legitimate form of business. It would also appear to have implications for cooperative educators in determining where given types of educational information and attempts to gain understanding could be most purposefully directed.

While the importance of this framework is recognized it was not felt that it could be incorporated into the present study for three main reasons: (1) the data available were not adequate to place all nonmembers on any such continuum, (2) the available funds were not adequate to meet the additional expense of recording and tabulation, and (3) the major focus of this study was on overt member participation rather than possible degrees of nonmember participation.

| | | | | | | | | |
|------------------------|------------------------------|--|---------------------------|---|-----------------------------------|------------------------------------|---------------|--|
| Opposed to coops | Would not join coop | Don't know if they are opposed to coops | Not opposed to coop | Would join coops under varying circumstances | Were members in the past | Now doing business with coop | Now member | (Usual scor- ing beyond this point) |
|------------------------|------------------------------|--|---------------------------|---|-----------------------------------|------------------------------------|---------------|--|

Figure 2. Theoretical construct of lower range of participation continuum.

However, data were available in coded form that made possible the treatment of all nonmembers as a category. Thus nonmembers and members can be compared on the basis of certain selected characteristics. It is recognized that arbitrarily splitting data at a given point and comparing the two portions may not be good research method. On the other hand, becoming a member is really an important step in participation. It might be argued that this is a necessary threshold that must be passed before additional participation can take place.

The decision was made to attempt to determine if there were personal and social characteristics upon which members and nonmembers could be differentiated as groups.

The next step in methodology was to analyze cooperatives for unique characteristics and attempt to develop a member cooperative participation score.

Unique Elements of Participation in Farmer Cooperatives

A previous section pointed out that various functional classes and subtypes within those classes might be different elements of participation. The labor study of Rose and the elements of participation he used were given as an example.

One of the more or less unique characteristics of farmer cooperatives that might suggest unique elements of participation is the mainly economic character of cooperatives. A

point of departure might be to analyze the cooperative from the economic point of view and determine what participation elements are explicit and implicit because of its economic nature.

In economic terms a cooperative may be thought of as an association of firms or households organized for business purposes. These participating firms agree to conduct coordinately or jointly some activity common to them. This agreement runs multilaterally among the participating firms, rather than between each of the firms and the joint activity as such. The cooperative association consists of the sum total of the multilateral agreements among the participating firms. These participating firms must function as an economic team or group in relation to their coordinated activity.

Another aspect of cooperative activity is that when this group of individual firms form a cooperative association they agree mutually to set up a plant and operate it jointly as an integral part of each of their individual firms. The cooperative has no economic life or purpose beyond that of the participating economic units.¹

In economic terms business in a private enterprise system is organized and conducted through economic units. In

¹The above description is based on an economic analysis of cooperatives from Richard Phillips. Economic nature of the cooperative association. Jl. Farm Econ. 35: 74-78. 1953. Phillips has based much of his theory on the works of Frank Robotka and Ivan Emelianoff.

production the economic unit is the firm. In ultimate consumption it is the household.

The firm is conceived of as a sovereign economic unit within which productive resources are allocated and utilized for production of economic goods and services. Every firm has its entrepreneur who is the residual owner and controls the firm's decisions, bears the uncertainties of the firm and its operation, and receives the residual profits or losses resulting from these operations.

Thus in strictly economic terms it is correct to speak of farmer cooperatives as associations of participating firms. However, since it is the entrepreneurs who make the decisions for the firms, it is also obvious that one is immediately forced to talk in terms of participating entrepreneurs as persons. As stated by Phillips, these entrepreneurs operating as a group must make decisions and function in accordance with the multilateral agreements which govern their joint undertaking. This group of entrepreneurs is not only responsible for the decision but, as individual members of the group, will have to abide by those decisions and use the plant, accept responsibilities to finance, bear costs and risks and also share the benefits if any. They of course have the right to withdraw from the association.

In most cases the entrepreneurs of the firms making up farmer cooperative associations of Iowa are individual farm operators, or in some cases the farm family may be considered

as the entrepreneurial unit and the head of the family as its representative in the cooperative. The farm operator, in the main, is the entrepreneur. It has been fairly well established that these operator entrepreneurs do not have equal innate capacities nor have they developed comparable abilities to make economic decisions to maximize the profits of the firm for which they are entrepreneurs. Nor is it realistic to assume that these operator entrepreneurs have equal facts upon which to base their decisions nor do they have comparable labor, capital, and physical resources at their disposal. Even if the entrepreneurs were equal in the foregoing respects they might make quite different entrepreneurial decisions depending on what their values, objectives and goals might be. Many of these values and goals may not be in the pure assumed economic framework of maximization of profits.

Thus it would appear that there might be great differential participation in the cooperative associations by different firms, through their entrepreneurs as persons, due to the factors mentioned above. It seems realistic to analyze participation in relation to the personal and social characteristics of the entrepreneurs--here called members.¹

¹Another very important framework of analysis not attacked directly in this dissertation is that of optimum participation, in the economic sense, of the firm in the cooperative association. Most of the past social participation research has not set up any framework to attempt to analyze optimum participation. Past research seems to have taken one of two approaches to measurement of participation. In one case no

A quotation from Phillips indicates the sociological or group nature of cooperative associations from the economic point of view as well as some of the major elements of economic participation.

With respect to the coordinated activity, each participating entrepreneur must sacrifice some of his 'rugged individualism' and agree to become one member of an economic team. He must submit to team decision, as determined by the majority of the individual members of the team, even though these decisions may sometimes conflict with his individual interests.¹

And then speaking of the "economic relationships of members" as they relate to their participation in economic activities of the cooperative, Phillips continues:

These economic relationships among member firms arising from their joint operation of a common plant have to do with (1) the use made of the plant, (2) the decision making regarding the plant and its operation, (3) the financial responsibility for the plant, (4) the fixed and variable costs of operating their plant, (5) the uncertainties in connection with the plant and its operations, and (6) the economic benefits (positive and negative) which occur from operating this joint plant.

attempt is made to place any value judgment on the amount of participation but the objective has been merely to measure the amount of participation. On the other hand studies seem to imply that no participation is bad and that the more participation the better. Thus in the second case the optimum participation, as yet not specified, is more than anyone at the present time is participating. Within the strictly economic framework of profit maximization of the individual firms there is a basis for the analysis of optimum participation in cooperatives. However, the problem of the measurement of optimum participation when noneconomic factors also are taken into consideration is an area of research that must be attacked.

¹Richard Phillips. Economic nature of the cooperative association. Unpublished Ph.D. Thesis. Ames, Iowa, Iowa State College Library. 1952. p. 318.

The cooperating firms are faced with two questions concerning each of these relationships: (1) what specific group is responsible for each? and (2) how are they to be shared among members of the group? The responsible group is obviously the sum of the entrepreneurs of the individual firms that are operating the plant jointly. No other group can be expected to use the plant, to exercise control over it, to assume the financial responsibility for it, to bear the costs in connection with it, to shoulder the consequences arising from uncertainties in connection with it, or to partake of the economic benefits of the joint plant.¹

Thus it is easily seen that the cooperative is an association of firms which are represented by individual entrepreneurs. These individuals form an association or group, set up multi-lateral agreements and must function as a group to perform the many functions of organization, decision making, financing, risk and cost bearing and sharing of savings. These group relationships arise mainly out of the economic goals of their group but nevertheless these relationships are of a group nature and must be studied sociologically as are all group relationships.

The quotation from Phillips directly above listed six elements of participation. If the cooperative association is to operate to the advantage of its members at least two additional, yet related, elements of participation could be added to the six above.

The first has to do with the second point mentioned above, the decision making process. If these decisions are

¹ Ibid., p. 319-320.

to be made rationally, both for the individual firm and the overall association, members must understand the nature of the association and must be informed regarding the facts available upon which to base the decisions. To make such knowledge a participation element, one must assume that through some type of participation such as patronizing, talking with people, attending meetings and reading, the entrepreneur would obtain the necessary understanding and facts. In the dynamic sense this must be a continuing type of participation. In short this element may be thought of as participation to get understanding and facts.

In the second place, if the association is to exist and function in the best interests of its members there must be a willingness on the part of the members to assume organizational responsibilities in relation to the association. Some of such organizational responsibilities might be serving as an officer, as a member of the board of directors, as chairman, or as a member of various committees, participating in fact gathering to be used in decision making, getting new members if in the best interest of the association, and communicating with members to determine how the best interests of the various firms in the association can be served. In some cases the members of the association may choose to hire some of these things done. However, the members still have these as responsibilities. In short, this participation element may be

thought of as organizational maintenance duties.

Once these eight major elements of participation were set up the next step was to attempt to develop quantitative measurement of participation within each of these elements. Since the resources available for this study did not permit the collection of additional data, major emphasis was placed on making the best possible use of data already available. In some cases data were not available to measure certain elements of participation. In other cases, though data were available, it was not possible to quantify them for score use. In other cases, data were available but they were not the best or most important to measure a given participation element. Much additional data could be gathered about several of these elements. Because of the recognized inadequacy of the score finally developed, the author suggests that it not be used in its present form for future research. The greatest claim that can be made for the score is that as far as the author has been able to determine it is the most complete, integrated and logical score that has been developed thus far. By its use many tentative hypotheses may be set up so that additional researchers entering the field with similar, yet it is hoped improved, measuring devices, will have available hypotheses for additional testing.

These available data were studied and a score developed by the author and three recognized authorities in the field of

cooperatives on the staff of the Department of Economics and Sociology at Iowa State College: Frank Robotka, Richard Phillips and Sam Thompson.

There are several reasons that these people were used as judges. First, two of the members of the group, Robotka and Phillips, are recognized as outstanding men in cooperative theory. From the point of view of understanding the cooperative association from the economic point of view they are the leading figures actively engaged in the field today. Second, this group has probably given the most thought and participated the most in joint activity relative to the interrelation of contributions that the various disciplines such as sociology, law, psychology and economics can make to the understanding of cooperative associations. Third, this group is charged with the direct responsibility of carrying on extension education program in cooperatives in Iowa and thus are teaching certain fundamentals of cooperatives and cooperative participation. Thus if this study was to be of its maximum functional use in the Iowa educational program it had to fit in general the framework of educational teaching in Iowa. Fourth, and not least important, as the author reviewed the literature and talked with other people actively engaged in cooperative research and education and met with cooperative leaders, it was his decision that this group had the most and the soundest advice to offer in relation to the development of this

participation score.

There was general agreement between the three persons mentioned on the relevancy of the data included in the score and the weighting of the items. It should be pointed out that the weighting was based on two major criteria: (1) the importance of each element in relation to the other elements, and (2) the adequacy of the questions asked in gathering the data relative to the specific elements considered.

It is recognized that other workers have found that weighting does not appreciably improve the value of the score. In this case the economists mentioned felt that weighting the items was justified on logical grounds.

These men collaborated with the author in developing the score embracing the eight participation elements discussed on the following pages.

The Cooperative Participation Score

As indicated above, there seemed to be eight participation elements that were important to cooperatives. Each of these elements and the items available to attempt to measure participation in the elements will be discussed in detail below. However, to give the reader perspective and a preview of what is to follow a brief summary of the elements, items and scoring is given below.

| | Score for | |
|---|-------------|-----------------|
| | <u>Item</u> | <u>Element</u> |
| Use of the plant or patronage | | |
| Per cent of possible business done with cooperative | 0-10 | |
| Felt responsibility to patronize and patronized | 5 | |
| Gave the cooperative first chance to serve | 1 | |
| Did not "shop around" before buying or selling | 6 | |
| Total possible | | 21 ¹ |
| Decision making regarding the plant and its operations | | |
| Attendance at meetings | 0-15 | |
| Total possible | | 15 |
| Accepting financial responsibility | | |
| Mentioned financing as a responsibility and lived up to it | 3 | |
| Realized investment of savings and satisfied | 8 | |
| Total possible | | 11 |
| Sharing fixed and variable costs of operating the plant | | |
| Willingness to share educational costs | 7 | |
| Total possible | | 7 |
| Accepting responsibilities for risks and uncertainties | | |
| No data available on this point | | 0 |
| Sharing economic benefits of the plant | | |
| Only data relevant to this point included under element one above | | 0 |

¹It is possible to receive score only on one of second or third subdivisions.

| | <u>Score for</u> <u>Item Element</u> | |
|---|---|----|
| Participation to get facts and understanding | | |
| Receive current information about cooperative | 3 | |
| Wished additional information | 6 | |
| Total possible | | 9 |
| Organizational maintenance duties | | |
| Talked to neighbors about cooperative | 5 | |
| Took criticisms to proper authority | 7 | |
| Total possible | | 12 |
| Grand total possible | | 75 |

Use of the plant or patronage

Per cent of possible business done with cooperative. A direct measure of the patronage of each member was obtained. It was recognized that different members would have a different potential business that they could transact with their cooperatives. For example, the dairyman with a large herd could theoretically do a much larger volume of business with the cooperative than the dairyman with a small herd. The approach to this element was to determine the per cent of potential business each member did with his cooperative. The actual question asked was, "Do you split your business with competitors of your cooperative on goods bought or sold by your cooperative?" If the answer was yes the following ques-

tion was asked, "What per cent of your business do you do with your cooperative?" The basis for scoring was as follows:

- | | | |
|-----|--------------------------------------|-----------|
| 1. | 100 per cent done with cooperative | 10 points |
| 2. | 90-99 per cent done with cooperative | 9 points |
| 3. | 80-89 per cent done with cooperative | 8 points |
| 4. | 70-79 per cent done with cooperative | 7 points |
| 5. | 60-69 per cent done with cooperative | 6 points |
| 6. | 50-59 per cent done with cooperative | 5 points |
| 7. | 40-49 per cent done with cooperative | 4 points |
| 8. | 30-39 per cent done with cooperative | 3 points |
| 9. | 20-29 per cent done with cooperative | 2 points |
| 10. | 1-19 per cent done with cooperative | 1 point |
| 11. | No business done with cooperative | 0 |

Felt responsibility to patronize and patronized. In this element an attempt was made to get at not only participation as such, but rational meaningful participation. Was patronage regarded as a responsibility when the member made the decision to patronize? Many people would not accept blind loyalty as a rational basis for participation. Each member was asked, "What are your responsibilities as a member of your cooperative?" Despite the loading of the question, 29 per cent said they had no responsibility. Thus it might be assumed that even if this group did participate 100 per cent it was not because of any felt responsibility but for some other reason. However, 64 per cent of the members mentioned some form of

participation as a responsibility. To give basic understanding an action or participation dimension they were then asked if they lived up to that responsibility. The actual answer to the latter question was obtained in the case of patronage when they gave the per cent of business they did with the cooperative. The following scoring was used: If the member mentioned patronage as a responsibility and lived up to that responsibility he was given a score of five points.

Gave the cooperative first chance to serve. About eight per cent of the members stated that their responsibility was to give the cooperative the first chance at their business. That is, they felt justified to compare prices and deal with competitors of the cooperative if competitors' prices were more favorable. This, of course, is not in keeping with sound cooperative theory. However, the judges felt that even this much recognition of responsibility to participate was better than no recognition of responsibility. Thus the following scoring was used: If the member stated that he had a responsibility to give the cooperative the first chance and he lived up to that responsibility he was given a score of one point.

This and the previous subdivision of the initial element--use of the plant or patronage--were answers to the same question, "What are your responsibilities as a member of your cooperative?" It is not logical to expect a member to give both the answers of patronize and give the cooperative the first

chance to this question. In no case did a member give such a dual answer. Thus in the scoring the member did not receive a score for both these subdivisions.

Did not "shop around" before buying or selling. Another item related to the element use of the firm was included in the data. A cooperative association usually sets up a plant through which members conduct their joint activity. This cooperative arrangement assumes that member firms will conduct that segment of their business agreed upon through the plant. Thus the plant and equipment is of such magnitude to accommodate a volume of business based on the multilateral agreement between members. As long as the firm is a member of the association it will be expected to do that segment of its business agreed upon through the cooperative plant. Thus the firm's entrepreneur would not be expected to compare prices at his cooperative with those of competitors every time he sold and then sell where he could get the greatest advantage at the moment. The firm would be expected to patronize the cooperative plant until the entrepreneur had made a rational decision that it was to the firm's best long run interest not to patronize the cooperative and then withdraw its membership from the cooperative according to pre-existing rules set up for such action.

These members also have agreed that they will carry on a given part of their firm's activity jointly and thus will

not compete against each other. It is generally agreed that the member who "shops around" for the best price each time he sells and then sells where he can get the advantage at the moment is not living up to his multilateral agreement and is not participating to the expected extent in his cooperative.

Each member was asked if he inquired about prices at other places before making the decision to buy or sell at the cooperative. The method of scoring was as follows: If the member does not inquire at other places each time before making the decision to buy or sell at the cooperative he was scored six points.

The total possible points on use of the plant or patronage was 21.

In general these items seem to the author to be the most important ones related to this element of participation. A more adequate method of determining the extent to which members were utilizing the various services offered by the cooperative could be devised.

Decision making regarding the plant and its operations

Attendance at meetings. Technically, the annual meetings and officially called special meetings are the only formal occasions on which members may officially participate in decision making. At such times major policy decisions are usually brought before the membership and action taken. Financial and committee reports are also presented for adoption.

This is also the time that each member has the opportunity to help elect the board of directors. These meetings are also decision making occasions in the sense that at such times members may delegate authority to directors to make decisions in addition to those delegated to the board by the articles of association or by laws. Thus attending and participating in member meetings is an important element of participation.

Meeting attendance has a different context in cooperatives than in most other formal associations. In most of the other associations meeting attendance not only has the decision making element but it is much like patronage is to the cooperative. Meeting and group activity are the major consumption items provided by the associations. Such is not the case in cooperatives where patronage in the business sense is also a major participation item.

Each member was asked how often he attended general member business meetings. The terms in which he was asked to give his answer and the score given each were as follows:

- | | |
|------------------|----|
| 1. Whenever held | 15 |
| 2. Usually | 13 |
| 3. Occasionally | 5 |
| 4. Never | 0 |

The total number of points for this element of decision making was 15.

Another question closely related to this element, that of criticisms and taking them to the proper authority, will be

discussed under the element organizational maintenance.

Talking over common problems and defining the multi-lateral agreements prior to the meeting so rational decisions can be made is considered under the element of organizational maintenance. Getting the facts and understanding as a prior step to decision making is taken up under the element of participation to get facts and understanding.

All the weight in the present decision item was based on physical attendance. Additional information related to the participation of members in the deliberation and decision making while at the meeting would add greater meaning to this element.

Accepting financial responsibility

Mentioned financing as a responsibility and lived up to it. Since the members of a cooperative stand to gain the savings from the cooperative activity it is economic logic that they must be willing to finance the cooperative and its operations. Effective participation in financing means that each member will be willing to bear his proportionate share of financing or that he will assume his fair share of the cost of financing.

As stated above, each member was asked what his responsibilities were as a member of the cooperative. A few mentioned financing as a responsibility. These members were then questioned to determine if they were actually assuming this

responsibility. Statements concerning leaving patronage refunds in the cooperative and purchasing of stock were accepted as evidence of living up to this financial responsibility. No attempt was made to get at proportionality of financing.

The following scoring was used: If the member mentioned financing as a responsibility and lived up to that responsibility in the judgment of the interviewer he was scored three points.

Realized investment of savings and satisfied. Another common method of financing is that of using savings from the operation of the cooperative to finance the activities. One of the most common of these methods is the revolving fund method. Almost all the cooperatives in the sample were on the revolving fund method at the local level or the local was a part of a wholesale that was on the revolving fund basis. Thus the individual firms were helping finance by this method. Here again, an attempt was made to get at participation, not as such, but rational meaningful participation. Most of the members were participating in this type of financing. But, did they realize it and were they doing it on a rational basis in the sense that they were financing to get additional benefits and services for their firms and had they adopted this method as a choice of several alternatives?

It was first determined if the members were aware of the fact that a portion of their savings was held back to help

finance cooperative activities. If the member was aware of this phase of financing then he was asked if he felt that he was receiving additional benefits and services because of this action. If he answered in the affirmative he was given a score of eight points.

The total possible points on the element of financial responsibility was 11.

There are many other methods of accepting financial responsibility that were not considered in this study. Savings may be paid back in stock or certificates of indebtedness instead of being revolved. Some members are unable to actually provide the capital to finance their proportionate share but may be willing and may be accepting their responsibility to finance by paying interest to other members who finance disproportionately or to money lenders on the open market. The whole question of financing proportionately has not been touched in this study.

A more adequate approach could have been made in determining just how much the member knows about how he is financing. Does the member really know how much he is helping finance or did the board of directors sneak up on his "blind side" and withhold savings of which the member is unaware? The problem of the allocation of limited capital to alternative uses within the farm firm or to the cooperative association is not touched upon.

Sharing fixed and variable costs of operating the plant

Willingness to share educational costs. The present score is relatively weak on this point. Fixed and variable costs are usually deducted as a part of the operating expense and thus are generally shared by members in proportion to the amount of business the firm does through the cooperative. Thus it might be assumed that members do participate proportionally in this element of participation. It was thought that some insight might be gained into this participation element of assuming costs if the willingness to accept a generally recognized legitimate cost was explored. One such cost is that of keeping the member entrepreneurs informed so that they can make rational decisions in relation to the operation of their association. It is recognized that stated willingness might not be followed with actual participation. However, on the basis of the context in which the answers were given and collaboration evidence it is the judgment of the author that there would be a high correlation between stated willingness and actual participation.

The question actually asked was, "Should patrons be willing to give up a part of their refund to carry on an educational program for the cooperative?" The question was scored as follows: If the member stated he would be willing to bear the cost of the educational program he was given seven points.

Total possible points on the element of sharing fixed and

variable costs of operating the plant was seven points.

This is a rather difficult element to measure in a participation framework. One could determine in an understanding framework what the member considered to be his responsibility in relation to costs. Who does he think should make up the costs when they exceed the margin? Does the member insist that the provisional price is really a final price and thus someone else has to make up any excess costs? Does the member attempt to shift costs to other departments or to non-members? The difficulty comes in attempting to measure these understandings and implicit actions in a participation framework. Voting records and willingness to abide by decisions that are made that guarantee proportional sharing might be one possible approach.

Accepting responsibilities for risks and uncertainties

There were no suitable data for measuring this element of participation.

Sharing economic benefits of the joint plant

In general the participation in this element would be in direct proportion to the use made of the plant. This was measured under the first element of participation, patronage.

Participation to get facts and understanding

Received current information about cooperative. The

responsibility to get facts and develop the understandings upon which to base rational decisions in relation to the cooperative association has already been discussed. Stated willingness to bear the cost for such an educational or information program was made a part of the score under the sharing of cost element. There are many sources available to the member where he may get information about the cooperative association. It is logical to say that the member that is getting some current information about the cooperative association is participating in this element to a greater degree than the member who is getting no current information. The question actually asked was, "Where do you get current information about cooperatives?" Despite the unintentional loading of the question, 20 per cent of the members stated that they were not participating to even a minimum degree in this element, i.e., they stated they were not getting any current information. The members were scored on this element in the following manner: If the member stated he was getting current information about cooperatives he was given a score of three points.

Wished additional information. Here again, it was thought that insights might be gained into participation in the element of getting facts and understanding by attempting to get at stated willingness to participate in this element. The members were asked, "Would you like to receive more

information about your cooperative?" From the general level of cooperative understanding of the rank and file member it is apparent that most members have a need for additional information about their cooperatives. It is assumed that if additional information was provided to those desiring it they would utilize it to some degree and would participate in this element to a greater degree. The scoring on this point was as follows: If the member stated that he wished additional information about his local cooperative he was given six points.

Total possible points on participation to get facts and understanding element was nine.

The measurement of this element could have been done in much more detail. Mere receipt of current information is not too good an indicator of participation. Much could be done in determining the content of the current sources of information. Some of it was probably strictly business promotional while other sources may have been attempting basic cooperative education. The extent to which the information was read and understood might also be determined. Informal contacts with manager and employees and the informational content of such contacts might also be important. Field trips and visits to other cooperatives or businesses connected with cooperatives might be measures of this element of participation also.

Organizational maintenance duties

Talked to neighbors about cooperative. Formal communication among members at regular meetings was covered under decision making. The most common measurement of organizational maintenance has been the number of committee memberships or chairmanships or offices that members hold.¹ Questions to get at this information were not systematically included in the schedule used in this study. However, a part of this element which is probably most important to cooperatives was obtained. An important part of the cooperative association is the multilateral agreement between members. It should be remembered that the agreement is between members, not between the member and the joint activity. If the association is to function in the best interests of its members there must be communication between members. This is especially true if the cooperative is considered in its dynamic setting. One way that this communication might be maintained is by each member talking with his neighbor members about their joint undertaking and its functioning. It is assumed that members would feel most free to communicate with neighbors in what is probably a primary group setting. It is quite possible that the member who talks to his neighbors about the cooperative

¹Data available show nine members were officers in their cooperative. Six of these fell in the upper 16 per cent of the total participation scores. All nine fell in the upper 37 per cent of the participation scores.

also more often talks to others about cooperatives as well.

Talking to neighbors about the cooperative association might be considered as a part of this element of participation. The question asked was, "Do you talk with your neighbors about cooperatives?" The scoring was as follows: If the member talked to his neighbors about cooperatives he was given five points.

Took criticisms to proper authorities. The member not only has the responsibility to communicate with fellow members but with the paid management he helps hire to manage the association and with the board of directors that he has helped elect and to whom he has delegated certain responsibilities and authority. If the cooperative is to be run in the best interests of its members these members must communicate with those to whom they have delegated power to make decisions, set policies, and to carry them out. Criticisms or suggestions that do not get to the proper authority will not bring about desired changes. Thus the members not only have the responsibility to communicate with their fellow members, but if they have criticisms or suggestions about their association these should be made known to the proper people in the association so that decisions can be made in the best interests of the associated members. Members were asked if they had criticisms of their cooperative. Approximately one-third of the members had criticisms of their cooperative. Those who had criticisms

were then asked if they had mentioned these criticisms to the manager or directors. Scoring was as follows: If the member had criticisms and had mentioned them to the manager and board he was given seven points. If he had criticisms and had not mentioned them to the manager or board he was given no points. If he had no criticisms he was also given seven points.

Total possible points for organizational maintenance was 12 points.

In future studies a much more complete job can be done in determining member activities on committees, as officers or in any other capacities related to organizational maintenance. In some cooperatives members help put out newsletters, in others, members attend training schools, institutes and workshops to get information to improve the functioning of the association. More precise data could be gathered on the type of criticisms and the spirit of the criticisms in terms of constructive or destructive criticisms. Understanding could be related to this element by determining what basis of fact and understanding members have for making criticisms.

Total possible points on the participation score was 75.

Comparison of Cooperative Participation Score with Past Participation Scores

Despite the uniqueness of the cooperative association,

the inadequacy of the data available for some parts of the analysis it can be readily recognized that there are many similarities between the participation score developed here for cooperatives and those developed for other types of organization as previously reviewed.

Such elements as meeting attendance, contributing money, patronizing and voting have been found to be relevant in the present study as in many of the research studies reviewed.

Other elements have been included in both scores but in different forms. While participation in organizational maintenance such as committee members and officers are not included in the present score activity in terms of talking to neighbors and communicating with the manager and board are included.

Some of the differences are readily explained when it is recognized that this score deals with participation in a specific functional type of association, economic, and a specific association within that class, a given farmer cooperative. Since membership is a prior condition necessary to be a part of the population studied, there is no score for membership. Also, since participation is analyzed as a present ongoing activity, past memberships and officerships are not important to this score. Moreover, since this analysis deals with participation in a specific association there is no reason for including the number of similar associations to which the member belongs.

In some respects the present score may be superior to the others. The rather detailed breakdown of patronage as a form of participation and four way classification of meeting attendance attempts to get at participation more in detail than most scores. The element of participation through communication with members and elected officers and employees is also explored uniquely in this study.

Perhaps one of the most unique things about this score is the attempt made to get at meaningful rational participation. This is an attempt to deal with a new, and very difficult phase of participation research. Past research cannot be criticized for not including this dimension of participation because it was not within the stated objectives of the research. As pointed out the framework provided by this study may give some insights into setting up similar criteria of rational participation that may be explored in relation to other types of formal voluntary associations. The assumptions that rational participation is in the best long run interest of a given association might not be accepted by leaders in other associations such as religious associations. Some associations may accept blind loyalty, social pressure, threats, fear, and love as just as legitimate motivation to high participation.

The first minor objective of this dissertation was to determine the applicability of generalizations from other research to farmer cooperatives. The basic methodological

question now becomes, is the type of association studied in this dissertation similar enough to other associations and are the scores used to measure participation comparable enough so that it is reasonable to expect generalizations to be comparable? Though some may question an affirmative answer to this question, the author feels that there is enough similarity between both the associations and the scores to use past research generalization as partial data in setting up hypotheses to be tested in relation to cooperatives. However, this does not imply that on specific hypotheses if there are logical reasons that the author feels the uniqueness of the score or the association makes past generalizations inapplicable he should give those reasons and set up the most meaningful hypotheses in the light of all the data available. Thus, the hypotheses set up in this study will be the best hypotheses possible, in the mind of the author, set up both on the basis of past research and logical reasoning in relation to the specific association.

ANALYSIS OF DATA

This section of the dissertation is divided into three main parts. The first part deals with the comparison of members and nonmembers on the basis of selected personal, social and economic characteristics. The second part, the main focus of the dissertation, deals with the relationship of selected factors to differential participation of members in farm cooperatives. The last part attempts to determine the comparability of findings from past research studies with those from the present study.

Members and Nonmembers Compared on the Basis of Selected Personal and Social Characteristics

The section on methodology suggested that participation may be conceptualized as being on a continuum from no participation to a high degree of participation. The actual joining of the cooperative could be placed at some point on this continuum. However, the point might be raised that if participation is on a continuum would it be logical to expect the person who just joined the cooperative to be different (in terms of personal and social characteristics) than the person who is not quite ready to join it? Or is the act of joining the cooperative a sort of threshold over which members must pass and thus one might expect there to be some distinguishing characteristics between those who have just joined and those

who have not yet quite made the decision. Actually members and nonmembers are treated as separate categories in the subsequent analysis. Thus, there is included in each of the two categories a wide range of differential degrees of participation. As pointed out in the section on methods and procedures, the nonmembers range from those who say they would not join a cooperative under any circumstances through those who are not opposed to the cooperative, to those who are now trading with a cooperative and say they would join if asked. In the member group, participation ranges from just being a member without participating in any other way to those who have high participation scores.

Members and nonmembers will be compared on the basis of 13 personal and social characteristics to determine if significant differences exist. These include the more or less standard characteristics that have been used in past participation research: age, education, family composition, stage of family cycle, nationality background, tenure, years farmed, years residence in community, size of farm, type of farming, general social participation, participation in informal cooperative ventures, and socio-economic status.

In some cases the data have not been treated with the most meaningful statistical technique. For instance analysis of variance could have probably been more fittingly used than chi square when one factor is discreet and the other on a continuum. There are several reasons that these less

appropriate techniques were used in some cases. Some of the data, on nonmembers, were actually coded in the field into categories. Other data collected in raw form had subsequently been coded and punched on cards and in some cases the statistical tests already run. Thus it was thought for these few variables the additional expense of recoding and analysis was not warranted. Since the major focus of the study was on member participation it was felt that the time and money available could be more appropriately applied to that section. However, the data that could be easily collected and analyzed are presented in this section.

It is recognized that in some cases the statistical technique used probably provides an underestimation of the differences between members and nonmembers. However, in all cases except one where chi square rather than analysis of variance was used the differences were found to be significant. Thus, though there was a probable underestimation of the difference it was still sufficient to give evidence to reject the null hypothesis. In the one case where the difference was not significant the value of chi square was only 2.27 where significance at the 5 per cent level with 6 d.f. is 12.59. Though the use of chi square probably underestimated the difference it is doubtful that this difference would be significant if analysis of variance were used.

Community general participation patterns

As stated in the section on sample methodology the sample was drawn on a community basis. The level of general participation¹ was not a factor used directly in choosing the sample. However, the question might be raised if general participation does not differ by community and thus some of the participation differences found here are a function of community.

It is fairly well established that formal participation does differ significantly from folk to more urban cultures. Within certain areas of the United States this same proposition has been fairly well validated. For instance, the studies now underway in Kentucky² as well as the Kaufman³ study seem to give evidence to support this view.

It is recognized that urbanity is not necessarily

¹Careful differentiation must be made here between general participation and cooperative participation. General participation is used here to describe all formal social participation except cooperative participation. The actual general participation score used was computed on the basis of one point for each formal association to which the person belonged and one point for each office held. In addition each member was questioned and classified on the basis of being very active, active, fairly active, or low participation in the associations named. Three points were given for very active, two for active, one for fairly active and none for low participation. The cooperative participation score described in the methodology section deals only with participation in cooperatives.

²Personal conversation with Ward Bauder, formerly with Department of Rural Sociology, University of Kentucky, Lexington, who was a member of the research team making such a study.

³Kaufman, Participation in organized activities in selected Kentucky localities, p. 32.

related to size of center when those centers are under 5,000, the upper limit set for size of center in this study. An incorporated place of 200 near a large urban center may be more urban in its values and participation patterns than a farm trading center of 5,000 that is relatively isolated from a large metropolitan center. In a state that is as basically rural as Iowa, the question might be raised if there are differences in general participation rates by size of community. Size of center in the sample ranged from 269 to 4,610.

General participation scores were plotted against size¹ of community center on a scatter diagram. An inspection of these data yields little evidence to suggest that participation scores could be predicted from size of community.

Fessler found that division of population centers at population 1,000 was meaningful for his analysis of the relation of farmers' cooperatives to the community.² When

¹Approximately 60 factors are treated in this dissertation. The following method was used in treating continuous variables due to limited time and money available for the project. All continuous variables were plotted on a scatter diagram. The diagram was inspected and a judgment made whether or not there was a probable significant relation between the variables. The author's judgment was checked with a statistician to test the judgment. Actual statistical computations were made only on those variables that in the judgment of the author were either doubtful as to the significant relationship or those that were obviously related. Subsequent analysis demonstrated the validity of this technique. Most of the variables in the "doubtful class" were found to be not significantly related. However, a few were. All of those that were thought to be related from inspection were found to be significantly related with treated statistically.

²See Beal, Fessler and Wakeby, op. cit., p. 215.

participation scores were compared on this basis there was no significant difference. Chi square was 1.05 where significance at the 1 per cent level with 3 d.f. is 7.82.

It has been implied above that size may not be the only basis upon which community participation rates might differ. Though the following evidence is not conclusive it does suggest that there may not be any significant difference in participation rates by community in Iowa. In 14 of the 22 communities in the study there were seven or more members of cooperatives (Table 3). To make generalizations on fewer

Table 3. General participation of cooperative members by communities in which there were seven or more members in the sample.

| Community | Members | | Mean general participation score |
|--------------|---------|----------|----------------------------------|
| | Number | Per cent | |
| Rook Valley | 25 | 10.4 | 3.32 |
| Burt | 23 | 9.6 | 4.30 |
| Farley | 23 | 9.6 | 4.09 |
| Volga City | 23 | 9.6 | 3.70 |
| Hanlontown | 22 | 9.1 | 3.50 |
| Waukee | 22 | 9.1 | 4.14 |
| Cresco | 19 | 7.9 | 3.42 |
| Dayton | 15 | 6.3 | 4.20 |
| Dunkerton | 15 | 6.3 | 3.40 |
| Floyd | 14 | 5.8 | 4.09 |
| Yale | 12 | 5.0 | 3.75 |
| Mt. Pleasant | 10 | 4.2 | 4.40 |
| Shambaugh | 10 | 4.2 | 2.00 |
| Runnels | 7 | 2.9 | 3.57 |
| Total | 240 | 100.0 | |

than this number was thought to be doubtful procedure. Two hundred forty of the 268 members were found in these 14 communities. These communities are fairly well distributed over the state and include the upper and lower limit of size of community center. Some of these communities had no cooperative in the center, some had one and others had as many as four. Some had only one cooperative but that cooperative offered five or six different major services. When these communities were compared on the basis of general participation scores of members found in them there was no significant¹ difference by community (Table 4). F was 1.27 where significance at the 5 per cent level is 1.79. Thus it would appear that in the range of communities in the present Iowa study and the size of the present sample there is no evidence to support the proposition that there are differential general participation rates. These data do not, however, take account of the possible selective factor of their being a cooperative in the community and the fact that these data deal only with cooperative members, which may also be a selective factor. Additional research needs to be done for further testing of the proposition suggested.

¹The common practice has been followed in this dissertation of using the term significant for significance at the 5 per cent level and highly significant for significance at the 1 per cent level. Significance implies that the difference between the sample means is so great that it would occur in fewer than 5 per cent of the samples from populations in which the mean differences are zero, the assumption when the null hypothesis is used.

Table 4. Analysis of variance of general participation by communities in which seven or more members occurred in the sample.

| Source of variation | Degrees of freedom | Sum of squares | Mean squares |
|---------------------|--------------------|----------------|--------------|
| Between groups | 13 | 61.89 | 4.76 |
| Within groups | <u>226</u> | <u>836.09</u> | 3.70 |
| Total | 239 | 897.98 | |

Selected personal and social characteristics

¹
Age. Past participation studies indicate that there is a relationship between age and membership in formal voluntary associations. One of the most complete studies was that of Kaufman in Kentucky.² Kaufman found that membership in organized activities increased very rapidly from age 20 to 30, continued to increase rapidly until age 50. At age 50 memberships leveled off until age 70 and then they declined rapidly.³ In general, Anderson found the same pattern in his study of total farmer participation in New York. However, his data did not show as sharp an increase in memberships from age 30 to 50. These data did not indicate what the pattern is after age

¹See the Appendix for description of the objectives, population studied, time of study and method of analysis for the important research studies cited in the body of the dissertation.

²Kaufman, Participation in organized activities in selected Kentucky localities, p. 29.

³W. A. Anderson. The membership of farmers in New York organizations. N. Y. (Ithaca) Agr. Exp. Sta. Bul. 695. 1949. p. 14.

70 by individual years. Later data presented by Anderson and Plambeck are not complete but seem to follow the same general pattern. Young families, those under 35, had the lowest membership, there was steady increase in participation up to age 55.¹ The last category was 55 and over, which makes it difficult to determine just what the trend is over age 55. Mangus and Cottam in an Ohio study² found a steady increase in adult memberships up to age 60. Maximum activity was shown by people 45 to 65. Persons under 35 showed the least participation and 65 to 74 were the next least active. C. Arnold Anderson and Bryce Ryan³ in an Iowa study found the highest memberships in age grouping 40 to 54. Those under 39 and those over 55 had about the same average memberships per person.

⁴Kaufman in a recent New York study found that age was a factor associated with different degrees of formal participation in that individuals under 30 and over 70 had a smaller number of organizational memberships. In the range 30 to 70 there seemed to be no association between age and extent of memberships.

There are at least five studies that have dealt directly

¹Anderson and Plambeck, op. cit., p. 15.

²Mangus and Cottam, op. cit., p. 15.

³C. Arnold Anderson and Bryce Ryan. Social participation differences among tenure classes in a prosperous commercialized farming area. Rural Soc. 9: 285. 1943.

⁴Kaufman, Prestige classes in a New York rural community, p. 21-22.

with the relationship of age to membership in farmer cooperatives. Anderson found that membership in the Dairymen's League and other cooperatives include a larger proportion of the operators who are 50 or more years of age than of the total group of operators in the study.¹ In a later study Anderson and Sanderson made the same statement but also noted that for the other age groups cooperatives follow the same pattern as other formal associations.² However, this last statement in itself means that age is a differential factor since membership in other formal associations differ by age.

Gibson, in his Michigan study, found that members were on the average older than nonmembers.³ Stern and Doran report that there was no significant difference between the average age of members and nonmembers.⁴ However, this does not necessarily mean that the distributions of ages of members and nonmembers were not significantly different.

Losey found that there was no significant relationship between age and membership.⁵

¹Anderson, The membership of farmers in New York organizations, p. 19.

²Anderson and Sanderson, op. cit., p. 13.

³Gibson, op. cit., p. 4.

⁴Stern and Doran, op. cit., p. 3.

⁵Losey, op. cit., p. 202.

There seem to be some logical reasons that these relationships might exist between age and membership in formal associations. The early period, from 20 to 30, is that stage when young people are intent on finding a mate or, if married, getting a home and family established. The community probably does not accept them as young adults and full fledged community members and thus they do not, or are not asked to, join as many organizations. The younger family probably feels first responsibility to family thus does not take on many obligations outside of the home.

This is the period when both the firm and the family are needing the greatest amount of capital in terms of supply available. In many cases additional labor is substituted for capital. This means that both time and capital may be limiting factors to membership in formal organizations. At this point in the development of the firm and family a few cents margin in the shortrun may be much more valuable than major savings in the longrun.

The feeling on the part of the young potential member that if he joins the cooperative he should do all his business with it may conflict with the independence of the young farmer. Lack of understanding of what a cooperative is, how it functions and possible advantages may deter his joining.

As the farmer grows older, say over 55, he quite often begins to cut down on his scale of operations and many times

retires. Although he may continue active in his church or lodge there would probably be little incentive for him to continue active membership in his cooperative. It is also quite possible that as a farmer accumulates capital and operates on a larger scale, as he grows older, many of the advantages he once had in conducting his business jointly with his neighbors he can now get by acting alone. Thus he might drop out of the cooperative.

On the basis of the research findings and the reasons given above, it is expected that there will be a significant difference when members and nonmembers are compared on the basis of age. Hypothesis in the null form: There is no difference between members and nonmembers when they are compared on the basis of age.

There is a significant difference between members and nonmembers when compared on the basis of age (Table 5). Chi

Table 5. Members and nonmembers by age categories.

| Age category | Members | Nonmembers | Total |
|--------------|----------|------------|-----------|
| 20 - 29 | 25 | 37 | 62 |
| 30 - 39 | 85 | 58 | 143 |
| 40 - 49 | 69 | 71 | 140 |
| 50 - 59 | 46 | 54 | 100 |
| 60 - 69 | 37 | 39 | 76 |
| 70 and over | <u>6</u> | <u>19</u> | <u>25</u> |
| Total | 268 | 278 | 546 |

square is 14.73 where significance at the 5 per cent level with 5 d.f. is 11.07. The null hypothesis is rejected.¹

Fewer of the young, 20-29, and the old, 70 and over, were cooperative members while those in the age group 30-39 showed the highest proportion of cooperative members. Between ages 40 and 69 there was little difference between members and nonmembers when compared by age.

Since the null hypothesis is rejected the original proposition that there would be a significant difference when members and nonmembers were compared on the basis of age is supported.

Educational level. There seems to be conflicting evidence on whether or not the amount of formal schooling is a selective factor in any uniform fashion in the determining of membership in formal associations. Kaufman in his Kentucky study found a significant positive relationship between number of years of schooling and the number of memberships that were held in formal associations. He found the higher the school grade completed the larger the percentage of persons who belonged to one or more organizations. The greatest difference was between those who had some high school training and those

¹In this dissertation difference at the 5 per cent level has been accepted as sufficient evidence to reject the null hypothesis and thus the term "the null hypothesis is rejected" is used. If the difference is not significant at the 5 per cent level it is assumed that there is "not sufficient evidence to reject the null hypothesis".

who had none. Both religious and "other" types of affiliation increased but the latter to a greater degree.¹ Both Anderson and Plambeck² and Lindstrom³ found that both membership and participation increased in relation to the amount of formal schooling. The data of Duncan and Artis support this same generalization.⁴ Mangus and Cottam, however, found that those people who had attended but not completed high school and those who had completed high school were most often members and were most often active in formal associations.⁵ Anderson⁶ in an earlier New York study found that those with the most schooling not only belonged to the largest number of organizations, but a larger proportion of those with more schooling belonged to each type of organization. He found this especially true of memberships in the Grange, lodges and social-civic organizations. However, in the church, the Farm Bureau and in cooperatives, schooling was selective to only a very small degree.

In their summary of the New York cooperative studies Anderson and Sanderson stated that schooling did not appear to be highly selective as to membership, but it did tend to

¹Kaufman, Participation in organized activities in selected Kentucky localities, p. 9-11.

²Anderson and Plambeck, op. cit., p. 15, 32.

³Lindstrom, op. cit., p. 111.

⁴Duncan and Artis, op. cit., p. 28.

⁵Mangus and Cottam, op. cit., p. 42.

⁶Anderson, The membership of farmers in New York organizations, p. 22.

make the farmers slightly more favorable to the cooperative method.¹ Gibson in his Michigan study found that members had more years of schooling than nonmembers.² Stern and Doran found that the proportion of nonmembers having high school or college education was less than among members--³ members had a higher average education than nonmembers. Losey found that education was related positively to membership. More of those who had completed high school were members than those who had not.⁴

There are many reasons given to support the contention that formal education could be expected to be a factor related to belonging to formal associations in general. It is contended that formal education should expand the social horizons and feeling of responsibility of the people. It should provide people with a broader base of understanding so that there would be a greater awareness of needs--some of which could be met best through formal associations. Schooling might bring with it proficiency in speaking and writing, a development of the technical understanding and social skill of working with people. Income and prestige class are associated with formal schooling. These would provide the financial resources, perhaps the time and the social incentive, in

¹Anderson and Sanderson, op. cit., p. 13-14.

²Gibson, op. cit., p. 4.

³Stern and Doran, op. cit., p. 5.

⁴Losey, op. cit., p. 142.

terms of prestige rating, to belong to formal associations.

However, there are also some seemingly valid reasons that formal schooling would not necessarily be a selective factor in determining membership in farmer cooperatives. Memberships in farmer cooperatives are easily obtained. At a minimum there is little in the way of social relationships and skills needed to become a member. No invitations to join, no social skills to qualify one for membership seem to be needed. Merely a membership check to the manager is all that is usually needed. After joining the association, group activity may be kept at a minimum with purely a buying and selling relationship between the manager and the member. However, one would expect that education might be a selective factor in determining participation in meetings, policy decisions and holding office once the person is a member. The fact that the average Iowa farmer is a graduate from grade school also might make education less selective in Iowa than in some of the other studies where the educational level is lower.

However, on the basis of past cooperative research and what appears to be the strongest evidence given above the proposition is suggested that there will be a significant difference when members and nonmembers are compared on the basis of formal education.

Hypothesis in the null form: There is no difference between members and nonmembers when they are compared on the

basis of formal education level as categorized below.

There is no significant difference when members and nonmembers are compared on the basis of education (Table 6). Chi square was .41 where significance at the 5 per cent level with 4 d.f. is 9.44. There is not sufficient evidence to reject the null hypothesis.

Table 6. Members and nonmembers by years of formal education completed.

| Years completed | Members | Nonmembers | Total |
|-----------------|-----------|------------|-----------|
| 0 - 7 | 34 | 40 | 74 |
| 8 | 114 | 119 | 233 |
| 9 -11 | 44 | 44 | 88 |
| 12 | 58 | 58 | 116 |
| 13 or more | <u>18</u> | <u>17</u> | <u>35</u> |
| Total | 268 | 278 | 546 |

Since the null hypothesis is not rejected, the original proposition that there will be a significant difference when members and nonmembers are compared on the basis of education is not supported.

Family composition. Two aspects of family composition may be selective in relation to membership in formal associations. The first deals with whether or not the inhabitants of a place of residence are: single unmarried individual(s);

conjugal family including children; conjugal family plus relatives or other persons living with the family; or broken family, such as divorced, widow or widower. There are few data in the rural participation studies on this aspect of family composition. Mangus and Cottam found that husbands and wives of unbroken families were more active in organized groups than were the heads of broken families.¹

The above findings seem logical for some types of formal associations. This would be true if family attendance was the accepted pattern. With the rural value connected with divorce those from broken divorced homes might not be accepted readily in some groups. It might also be true that the young unmarried farmer would not feel at ease in some associations or would be more interested in spending his time with others similarly situated and in activity other than organized group activity.

However, it is doubted that these factors are important in determining whether or not farm people will join cooperatives. There would be little selectivity due to social pressure, or upholding of any type of value system represented by the family composition categories listed above when people attempt to join a cooperative. As indicated above, the interpersonal relationships of obtaining a membership may be of very secondary nature, thus making it difficult to enforce

¹
Mangus and Cottam, op. cit., p. 41.

any social pressure or specific value system. The proposition is suggested that members and nonmembers will not differ significantly when compared on the basis of family composition. Hypothesis in null form: There is no difference between members and nonmembers when they are compared on the basis of family composition as categorized below.

There was no significant difference when members and nonmembers were compared on the basis of family composition (Table 7). Chi square was 2.34 where significance at the 5 per cent level with 3d.f. is 7.82. There is not sufficient evidence to reject the null hypothesis.

Since the null hypothesis was not rejected, the original proposition that members and nonmembers will not differ significantly when compared on the basis of family composition as categorized is supported.

Table 7. Members and nonmembers by family composition.

| Family composition | Members | Nonmembers | Total |
|--------------------------|----------|------------|-----------|
| Single person | 14 | 20 | 34 |
| Family only | 226 | 230 | 456 |
| Family plus ^a | 20 | 16 | 36 |
| Broken family | <u>8</u> | <u>12</u> | <u>20</u> |
| Total | 268 | 278 | 546 |

^aFamily plus other relatives, friends, hired help, etc., living in same household.

Stage of family cycle. The second aspect of family composition is that of the stage of the family cycle such as: single, married with no children, married with children pre-school, married with children in school, married with children beyond school. Kaufman in his Kentucky study found that women who were mothers of children under six had significantly lower rates of participation than those who did not.¹ Anderson and Plambeck found that families without children and families with children over ten participated slightly more than other families.² In a study of participation in a voluntary T. B. X-ray program this author found that those families with children in school participated to a significantly greater degree than did other families. Mangus found that a larger proportion with children were participants³ than those who did not.

Reasons that these participation patterns may be expected would include: (1) Children, and younger children in particular, take more personal attention and time of parents, (2) This stage of the family is usually associated with younger couples and thus in most cases there is lack of capital and time for joining associations, (3) The young couple is usually just developing its new role in the community and neither the

¹Kaufman, Participation in organized activities in selected Kentucky localities, p. 30.

²Anderson and Plambeck, op. cit., p. 15.

³Mangus and Cottam, op. cit., p. 41.

family nor the community feels sure enough of this integrative process so that the family participates fully, and (4) When children enter school and the accompanying activities of this age group, they quite often draw their parents into formal group activities.

The relationship between these stages of the family cycle and age is also recognized.

On the basis of the above findings and reasons given, one would expect to find a significant difference when members and nonmembers are compared on the basis of the stage of family cycle. Hypothesis in the null form: There is no difference between members and nonmembers when they are compared on the basis of stage of family cycle as categorized below.

Chi square is 13.52 where significance at the 1 per cent level with 4 d.f. is 13.28. The null hypothesis is rejected.

A larger proportion of nonmembers had no children or had children beyond school age, while a larger proportion of members had children in school (Table 8). The stages are closely related to age of members and the findings in general agree with those on age.

Since the null hypothesis is rejected, the original proposition that there would be a significant difference when members and nonmembers are compared on the basis of stage of family cycle is supported.

Nationality background. In talking to cooperative laymen

Table 8. Members and nonmembers by stage of family cycle.

| Stage of cycle | Member | Nonmember | Total |
|--|-----------|-----------|------------|
| Single | 14 | 20 | 34 |
| Married with no children | 22 | 37 | 59 |
| Married with pre-school children only | 38 | 38 | 76 |
| Married with children in school | 143 | 109 | 252 |
| Married with children out of school only | <u>51</u> | <u>74</u> | <u>125</u> |
| Total | 268 | 278 | 546 |

and leaders in the Middlewest the question is often raised whether or not nationality background is a selective factor in determining membership in farmer cooperatives. It is argued that people from certain foreign countries come to this country with a background and philosophy of cooperative activity and this is passed on from generation to generation. Nationalities of the Scandinavian countries, Holland and sometimes England are mentioned in this category. It is expected that these peoples will more often form and belong to cooperatives than other nationalities. These other nationalities usually include the Germans, French, Southern Europeans and those so far removed from tracing their ancestry to classify themselves as Americans or "mixed". The question might well

be raised if the important thing is nationality background of the individual or a homogeneous settlement of a given nationality group with a common value system, supposedly brought from the homeland, that furnishes enough individuals to form¹ a cooperative. Other studies indicate that where several nationality groups reside in the same community quite often each nationality group forms its own, and sometimes duplicate, organizations. However, the size of the communities and the lack of specific nationality groups of sufficient size for farmer cooperatives probably precludes this possibility in most of rural Iowa.

No specific research relating to nationality as a selective factor in membership in formal organizations in either general rural organizations or cooperatives was found. North Carolina research on attitudes toward cooperatives, however, showed that most farmers in that study did not connect cooperatives with any special foreign country. When asked the question, "What country or countries come to your mind when cooperatives are mentioned?" 89 per cent of the cooperative members said none. Two per cent named Sweden, four per cent Denmark, four per cent England and one per cent² "other". Ninety-nine per cent of the nonmembers said none.

¹See George A. Lundberg, Mirra Komarovsky and Mary Alice McInerney. *Leisure, a suburban study*. N. Y., Columbia University Press. 1934. p. 135-137

²Martin A. Abrahamsen and Claude L. Scroggs. *What North Carolina people think about agricultural cooperatives*. N. C. Agr. Exp. Sta. A. E. Information Series No. 16. 1948. p. 21.

Other field experience in Iowa has indicated the difficulty that many people have in tracing their nationality background. Many people have little or no identity with their nationality group. However, there are many who name nationality background. The following nationality combinations were made to obtain numbers large enough to treat statistically: American, British Isles, Dutch, German, Scandinavian (Norwegian, Fins, Swedish and Danes), mixed (those naming two or more specific nationality backgrounds) and others.

The proposition is suggested that there will be significant differences between members and nonmembers when they are compared on the basis of stated nationality background.

Hypothesis in the null form: There is no difference between members and nonmembers when they are compared on the basis of named nationality background as categorized below.

There was a significant difference (Table 9). Chi square was 14.13 where significance at the 5 per cent level with 6 d.f. is 12.59. The null hypothesis is rejected.

The greatest difference occurred in the Dutch, the mixed and the "other" categories.

If those from continental Europe (Dutch, Scandinavian, German and "other") are compared with the British Isles, American and "mixed" groups there is a highly significant difference (Table 10). Chi square is 8.34 where significance at the 1 per cent level with 1 d.f. is 6.64. Those with the

Table 9. Members and nonmembers by named nationality background.

| Nationality | Members | Nonmembers | Total |
|--------------------|-----------------------|----------------------|-----------|
| American | 25 | 29 | 54 |
| British Isles | 50 | 57 | 107 |
| Dutch | 27 | 14 | 41 |
| German | 73 | 61 | 134 |
| Scandinavian | 27 | 27 | 54 |
| Mixed ^a | 52 | 80 | 132 |
| Others | <u>14^b</u> | <u>7^c</u> | <u>21</u> |
| Total | 268 | 275 ^d | 543 |

^aMixed indicates that the respondent named two or more specific nationality backgrounds listed above.

^bThe others in this category include ten Southern Europeans, two from Switzerland and two from France.

^cThe others in this category include three Southern Europeans, two from France, one from Belgium and one from Switzerland.

^dThree gave no nationality background.

Table 10. Members and nonmembers by special category of named nationality background.

| Nationality | Members | Nonmembers | Total |
|--|------------|------------|------------|
| American, British Isles and mixed | 127 | 166 | 293 |
| Dutch, German, Scandinavian and others | <u>141</u> | <u>109</u> | <u>253</u> |
| Total | 268 | 275 | 543 |

continental European backgrounds are much more likely to be members.

Since the null hypothesis is rejected, the original proposition that members and nonmembers would differ significantly when compared on the basis of named nationality background is supported.

Length of residence in community. Number of years in farming and length of residence in community have been found to be closely related. Most research shows that those who have lived in a given community over a long period of time are more apt to be members of associations than those who have resided in the community a relatively short time. Kaufman in his Kentucky study used 20 years and five years as his division points; those who had lived in a given community 20 years or longer were much more active than those who had lived in the community only five years.¹ Anderson and Plambeck found that in general the greater the number of years a family was in the community the greater the participation. Lack of memberships was especially true for those who had resided in the community less than five years.² Lindstrom found that when those persons who had been in the community ten years or longer were compared with those of less than ten years' residence, the former provided almost six times as

¹Kaufman, Participation in organized activities in selected Kentucky localities, p. 8.

²Anderson and Plambeck, op. cit., p. 16.

¹
many dues paying members.

In cooperative studies Anderson and Sanderson found that persons of longer residence in the local community participated more in cooperatives than those who had resided only a short time.² Losey found the factor of length of residence in a community was not significantly related to membership in cooperatives.³

Though length of residence in the community may be an important factor related to membership in many formal organizations it is doubted if it would apply to farmer cooperatives. The fact that there was an available cooperative could be easily determined. Membership is not exclusive; membership may be obtained with a minimum of social contact and opinions on the general efficiency of the cooperative could be easily obtained from minimum contacts. Since the person could join and remain more or less inactive in relation to the cooperative he might not take as much time to make the decision to take out membership in the cooperative as he would in many other associations.

An inspection of a scatter diagram indicated that there is less relationship between length of residence in the community and age than between number of years farmed and age.

¹Lindstrom, op. cit., p. 110.

²Anderson and Sanderson, op. cit., p. 15.

³Losey, op. cit., p. 203.

Thus the suggestion that members and nonmembers will not differ significantly when compared on the basis of length of residence in community is not necessarily inconsistent with the prior hypothesis on the relation of age and membership. Hypothesis in the null form: There is no difference between members and nonmembers when they are compared on the basis of length of time in the community.

There was no significant difference when members and nonmembers were compared on the basis of length of residence in the community (Table 11). Chi square was 2.27 where signifi-

Table 11. Members and nonmembers by years' length of residence in present community.

| Length of residence in years | Members | Nonmembers | Total |
|------------------------------|-----------|------------|-----------|
| 0 - 5 | 52 | 64 | 116 |
| 6 - 10 | 38 | 34 | 72 |
| 11 - 15 | 27 | 24 | 51 |
| 16 - 20 | 20 | 18 | 38 |
| 21 - 30 | 45 | 42 | 87 |
| 31 - 50 | 64 | 68 | 132 |
| 51 - 80 | <u>22</u> | <u>28</u> | <u>50</u> |
| Total | 268 | 278 | 546 |

cance at the 5 per cent level with 6 d.f. is 12.59. There is not sufficient evidence to reject the null hypothesis.

Since there is not sufficient evidence to reject the null hypothesis, the original proposition that members and nonmembers would not differ significantly when compared on the basis

of length of residence in the community is supported.

Type of farming. A factor that is related uniquely to rural associations and might expect to be especially related to membership in farmer cooperatives is type of farming. There is little research related to this factor. Anderson found that membership in organizations does not depend on the predominate type of farming in an area.¹

In regard to cooperatives Anderson and Sanderson found that in purchasing cooperatives there was no selectivity on the basis of type of farming.²

One might expect that type of farming would be less selective in determining membership in purchasing cooperatives than in marketing cooperatives. Most purchasing cooperatives carry a number of items so that even though a farmer was not following the predominant type of farming in the area he still might find it profitable to belong to a cooperative just to purchase some of his items there. In Iowa, of course, many of the cooperatives have both the marketing and purchasing activities. This is particularly true of elevators. It is not usually true in petroleum, lumber and fluid milk cooperatives. However, often petroleum and lumber activities are an integral part of cooperatives that also have marketing functions. It would seem logical to suggest that type of farming would not

¹Anderson, The membership of farmers in New York organizations, p. 4.

²Anderson and Sanderson, op. cit., p. 14.

be an important factor in determining membership in farmer cooperatives in Iowa. The main exception that might be expected would be very specialized type of farming that did not fit the general pattern of farming in the area such as a milk farm, truck farms, large turkey or poultry farms, or some types of specialized seed farms.

Hypothesis: there is no difference when members and nonmembers are compared on the basis of type of farming as categorized below.

For statistical purposes dairying, poultry and "others" were combined into one category. There is a significant difference by type of farming (Table 12). Chi square is 9.79 where significance at the 5 per cent level with 3 d.f. is 7.82. The null hypothesis is rejected.

However, it may be noted that the major differences between members and nonmembers did not occur in the major types of farming in Iowa--general livestock and general farming. The small number of dairy farmers were approximately proportionately divided. The greatest differences came in the cash grain farmers, the poultry farmers and in the "other" category which combined make up only about 5 per cent of the total sample. The "other" category, which is all nonmembers, is made up largely of combination dairy-poultry farmers and people living on the land but renting most of it out.

Since the null hypothesis is rejected, the original

Table 12. Members and nonmembers by type of farming.

| Type farming | Members | Nonmembers | Total |
|---|----------|------------|-----------|
| Cash grain ^a | 5 | 12 | 17 |
| General livestock ^b | 173 | 177 | 350 |
| General ^c | 84 | 71 | 155 |
| Dairying, poultry and others ^d | <u>6</u> | <u>18</u> | <u>24</u> |
| Total | 268 | 278 | 546 |

^aMain enterprise, sale of grain off farm.

^bMain enterprise of hogs and/or cattle together with any other combination of livestock.

^cMain enterprise of livestock plus some cash grain or soybean sales off farm.

^dThere was a total of nine in the other category, all nonmembers. Five were dairy-poultry farmers, two were renting out their land and two had just moved on the farm and had not really started to farm.

proposition that there would be no significant difference when members and nonmembers were compared on the basis of type of farming is not supported.

Number of years farmed. The number of years a person has farmed is another factor that is uniquely related to membership in rural organizations. It also is a factor that one would expect to have a very close relationship to age. Anderson found that age and length of time farmed were closely

related and that neither showed a very close relationship to number of organizations to which persons belong after age 30.¹

In their summary of studies of cooperatives Anderson and Sanderson found that dairy farmers with 10 years or less of experience do not belong as frequently as do those with more than ten years of experience. Increasing number of years experience beyond ten years seem to make no apparent difference in cooperative memberships. They also found that in purchasing cooperatives the length of time farmed was no limiting factor to membership. Length of time farmed was related to membership in marketing cooperatives.²

To be consistent with the position taken on age, the proposition is suggested that members and nonmembers will differ significantly when compared on the basis of length of time farmed.

Hypothesis in the null form: There is no difference between members and nonmembers when they are compared on the basis of number of years farmed as categorized below.

There is a highly significant difference when members and nonmembers are compared on the basis of length of time farmed (Table 13). Chi square is 23.71 where significance at the 1 per cent level with 5 d.f. is 15.09. The null hypothesis is rejected.

¹Anderson, The membership of farmers in New York organizations, p. 14.

²Anderson and Sanderson, op. cit., p. 15.

Table 13. Members and nonmembers by years farmed.

| Years farmed | Members | Nonmembers | Total |
|--------------|-----------|------------|------------|
| 0 - 5 | 29 | 58 | 87 |
| 6 - 10 | 48 | 38 | 86 |
| 11 - 15 | 50 | 24 | 74 |
| 16 - 20 | 37 | 31 | 68 |
| 21 - 30 | 48 | 56 | 104 |
| 31 - 60 | <u>56</u> | <u>71</u> | <u>127</u> |
| Total | 268 | 278 | 546 |

The greatest differences occur in the groups that have farmed a relatively short time, five years or less, and in those that have farmed 11 to 15 years. A smaller proportion of those who have farmed five years or less are members. A larger proportion of members have farmed from 11 to 15 years. This conforms to the general findings in relation to age.

Since the null hypothesis is rejected, the original proposition that members and nonmembers would differ significantly on the basis of number of years they have farmed is supported.

Tenure status. Though, in general, research in rural participation shows that tenure is a factor related to membership in formal associations there is some evidence that contradicts this position. In Anderson's early study in New York he found that owner operators belonged to more organizations than did tenants and that a relatively larger percentage of

owners belonged to each individual organization.¹ Anderson and Plambeck in a later study found that owners more frequently than tenants belonged to associations and that owners also belonged to more associations.² Lindstrom found that not only did owners belong to more associations but that they also supported them best.³ Mangus and Cottam⁴ and Kaufman⁵ in Kentucky agreed in general with Lindstrom's findings. Duncan⁶ and Artis found owners had only a slightly higher formal participation score. However, Alexander and Nelson in Minnesota concluded that tenure generally seems to exert no great influence on membership and participation.⁷ C. Arnold Anderson in his Iowa study found that there was a distinct lack of tenure class differences in membership in associations among farmers in his study. Owners and tenants belonged in approximately the same percentages to church associations, educational-cultural associations, civic and recreational associations. However, more owners did belong to the fraternal, the religious auxiliary and to occupational associations which includ-

¹Anderson, The membership of farmers in New York organizations, p. 13.

²Anderson and Plambeck, op. cit., p. 7.

³Lindstrom, op. cit., p. 103.

⁴Mangus and Cottam, op. cit., p. 41.

⁵Kaufman, Participation in organized activities in selected Kentucky localities, p. 23.

⁶Duncan and Artis, op. cit., p. 38-39.

⁷Frank D. Alexander and Lowry Nelson. Rural social organization in Goodhue county, Minnesota. Minn. Agr. Exp. Sta.

¹
ed farm organizations.

Both Anderson and Sanderson² and Gibson³ state that a⁴
large proportion of farm owners join cooperatives. Losey⁴
found no difference by tenure. Reasons given to support the
general relation of membership and tenure include those
dealing with ownership being associated with permanence and
thus with feeling of personal, group and community responsi-
bility to participate in formal associations. However, there
no longer appears to be a consistent relation between full
ownership and prestige. In many cases the largest operators
are either part owners or tenants. The tenants in many cases
have larger accumulation of operating capital and perhaps
more money available for participation in formal associations.
It is the author's observation that in most cases tenure is
no longer consistently regarded as an important factor in
determining acceptance or prestige in rural Iowa.

In relation to present day cooperatives the tenant can
probably join the cooperative as easily as the owner. This
was not always so. Prior to the present Iowa Cooperative law
membership fees were quite often 100 dollars or more and in
some cases each member had to purchase certain minimum amounts

Bul. 401. 1949. p. 70.

¹Anderson and Ryan, op. cit., p. 281.

²Anderson and Sanderson, op. cit., p. 14.

³Gibson, op. cit., p. 204.

⁴Losey, op. cit., p. 204.

of stock. In some cases the basis for the membership fee refund was not explicit and in other cases it was not the policy for patronage refunds to be available when the member moved away from the community. These facts may have deterred some tenants from joining the cooperative in the past.

Though all these deterrents have not been explicitly taken care of in all cooperatives even today the general trend is that the cooperative is probably more accessible to tenants.

On the basis of the findings of the Anderson and the Losey studies and the personal observations cited, the null hypothesis is suggested.

Hypothesis in the null form: There is no difference between members and nonmembers when they are compared on the basis of tenure.

When the data were collected there appeared to be four logical categories of tenure (Table 14). Three were obvious--

Table 14. Members and nonmembers by tenure status.

| Tenure status | Members | | Nonmembers | | Total |
|---------------|----------|-------|------------|-------|-----------|
| Owners | 127 | 47.7% | 124 | 44.6% | 251 |
| Part owners | 35 | | 25 | | 60 |
| Tenants | 99 | 37.0 | 119 | 42.8 | 218 |
| Others | <u>7</u> | | <u>10</u> | | <u>17</u> |
| Total | 268 | | 278 | | 546 |

owner, part owner, and tenant. But there was a fourth category made up mostly of farm manager farms (not rented) and other farms that had varying types of partnership arrangements.

Chi square value was 4.93 where significance at the 5 per cent level with 3 d.f. is 7.82. There is not sufficient evidence from the present data to reject the null hypothesis.

From the data at hand it would seem that only in the part owner class was there any appreciable tendency to belong disproportionately to cooperatives. This difference was not significant.

Since there is not sufficient evidence to reject the null hypothesis, the original proposition that there would be no significant difference when members and nonmembers are compared on the basis of tenure is supported.

Size of farm in acres. The factor size of farm has not been conclusively demonstrated to be a selective factor in membership in rural associations. Kaufman in the Kentucky study found that tenure was more important than size of holding; owners of less than 100 acres participated more than ¹ tenants of over 100 acres. Anderson found that membership in church, social civic, and lodge groups were distributed in proportions almost equal to the total percentage of farmers in each farm size classification. However, medium and large farmers were disproportionately members of the Farm Bureau

¹Kaufman, Participation in organized activities in selected Kentucky localities, p. 23.

and cooperatives.¹

Both Stern and Doran² and Gibson³ found that members of cooperatives tended to operate larger farms than nonmembers. This of course could be average size and might not be indicative of the distribution of farms by size. Anderson and Sanderson found that in membership in purchasing cooperatives there was no selectivity by size of farm. In the marketing cooperatives there seemed to be a tendency for the medium size farmers to belong to cooperatives and for the very large and the very small farmers not to belong.⁴ Losey found size of farm was not a significant factor related to membership.⁵

Since there are both purchasing and marketing cooperatives in Iowa and many cooperatives provide both services it is difficult to formulate a proposition on the basis of cooperative function. There are some plausible economic reasons that the very large farmers might not belong to cooperatives. Many of them have such large operations that they as individuals obtain many of the same savings that cooperatives provide such as quantity buying, efficient marketing and handling, paying for just the services desired and having own feed mixing

¹Anderson, The membership of farmers in New York organizations, p. 20.

²Stern and Doran, op. cit., p. 6.

³Gibson, op. cit., p. 4.

⁴Anderson and Sanderson, op. cit., p. 14.

⁵Losey, op. cit., p. 204.

plant. The very large and the very small farmers might not find it to their best economic interest to associate with the large group of middle sized farms. In general the smaller bona fide farmers are usually also the less efficient farmers and thus might not see the savings that cooperative association could bring them. Some of the smaller farmers are only part time farmers and thus might not identify themselves with the farmer group or belong to cooperatives.

In general operators of larger farms also have higher socio-economic status. The contacts of the higher economic status groups are more often outside the community and county. Thus, the larger farmers might spend their "associational" time with other associations that operate on a wider geographic base or more specialized interest basis. It is also true that those with smaller holdings have lower socio-economic status thus they would be less prone to belong to any kind of formal association.

On the basis of the reasoning suggested above the proposition is suggested that members and nonmembers will differ significantly when compared on the basis of size of farm.

Hypothesis stated in the null form: There is no difference when members and nonmembers are compared on the basis of size of farm.

There is a highly significant difference in size of farm when members and nonmembers are compared (Table 15). Chi square is 15.17 where significance at the 1 per cent level

Table 15. Members and nonmembers by size of farm in acres.

| Size in acres | Members | Nonmembers | Total |
|---------------|-----------|------------|------------|
| 10 - 49 | 6 | 16 | 22 |
| 50 - 59 | 22 | 44 | 66 |
| 100 -174 | 105 | 110 | 215 |
| 175 -259 | 69 | 59 | 128 |
| 260 and over | <u>66</u> | <u>49</u> | <u>115</u> |
| Total | 268 | 278 | 546 |

with 4 d.f. is 13.28. The null hypothesis is rejected.

Operators of farms under 100 acres are disproportionately nonmembers. The same is true of those few operators of farms 500 acres and over. There is very little difference in tendency to be members by operators of farms from 100 to 259 acres but those who operate farms 260 acres or over are more¹ often members.

Since the null hypothesis is rejected, the original proposition that members and nonmembers would differ significantly when compared on the basis of size of farm is supported.

General social participation. The section on results thus far has been directed mainly at an analysis of personal,

¹It should be noted that the farms 500 acres and over in size were more often nonmembers than members. There were 12 farms over 500 acres, nine were nonmember and three were member. This would have produced cells too small to treat statistically as a category.

social and economic characteristics as they are related to membership in cooperative associations. At this point an additional analysis will be made to determine whether being a member in a cooperative is related to participation in other formal associations. For instance, the question might be asked, is participation in formal associations a pattern, i.e., do those people who belong to cooperatives also belong to more other formal associations than those who do not belong to cooperatives.

Anderson stated that it has been demonstrated conclusively that membership in a specific formal organization in rural areas leads to membership in other rural organizations.¹

Some farmer cooperative research findings relate to this point. McKay in a California study found that more than half of the Calavo cooperative members interviewed were members of other cooperatives of farm organizations.² Gibson found that cooperative members belonged to other farm organizations such as the Farm Bureau, Grange and livestock and crop associations more than did nonmembers.³ Henning and Poling in their Ohio study of cooperative marketing found that cooperative membership and patronage were associated with membership in other farm organizations and other cooperatives.⁴ Anderson and

¹W. A. Anderson. Social participation and religious affiliation in rural areas. Rural Soc. 9: 243. 1944.

²McKay, op. cit., p. 8.

³Gibson, op. cit., p. 4.

⁴Henning and Poling, op. cit., p. 10.

Sanderson found that participation in organizations other than cooperatives is one of the factors most directly related to participation in cooperatives. The general conclusions may be stated that cooperatives are supported chiefly by persons who participate in other community organizations especially the general farmers' organizations, such as the Farm Bureau and Grange.¹

There are some apparently logical reasons for these findings. As stated previously participation seems to be a family pattern. If one member of the family is a member and active all members seem to be active in formal associations. Some people seem more prone to work with other people. Others would rather work alone. This makes itself felt in many areas of the individual's life, including the propensity to be a member and active in formal associations. It takes individual and group aptitudes and skills to be accepted and be an active participant in formal associations. Some people never acquire those skills and this may keep them from participation in formal associations. Once a minimum of these skills is acquired they may join not only one but several associations.² For instance Anderson found that 21 per cent of the farmers belonged to no associations, 28 per cent belonged to only one (almost half of this group belonged to church only) and 50

¹Anderson and Sanderson, op. cit., p. 15.

²Anderson, The membership of farmers in New York organizations, p. 7.

per cent belonged to more than one association. The Iowa data show that 96 per cent of those who belonged to cooperatives also belonged to other associations. Thus in only 4 per cent of the cases was cooperative membership the only type of formal voluntary association membership held.

It may be true that there is some minimum formal participation experience that farmers desire to have before they are willing to become members in farmer cooperatives.

On the basis of research cited above and for the possible reasons given above the proposition is suggested that those people who are cooperative members are more often members of other formal associations than those who do not belong to cooperatives.

Hypothesis in the null form: There is no difference when members and nonmembers are compared on the basis of membership in other formal voluntary associations.

There is a significant difference (Table 16). Chi square is 11.11 where significance at the 1 per cent level with 1 d.f. is 6.64. The null hypothesis is rejected.

Since the null hypothesis is rejected, the original proposition that those people who are cooperative members will more often be members of other formal associations than those who are not members of cooperatives is supported.

People in the sample belonged most frequently to church, Farm Bureau, fraternal associations, Parent-Teacher Associations and veterans' associations in that order. Since a

Table 16. Members and nonmembers by membership in other formal associations.

| Membership in other associations | Members | Nonmembers | Total |
|-------------------------------------|-----------|------------|-----------|
| Member in other associations | 257 | 245 | 502 |
| Not member in other associations | <u>11</u> | <u>33</u> | <u>44</u> |
| Total | 268 | 278 | 546 |

significant difference was found between members and nonmembers when compared on the basis of their belonging to other formal associations, in general it might be hypothesized that this same difference would hold for specific formal association, i.e., members would more often belong to these other specific formal associations. Hypothesis in the null form: There are no differences when members and nonmembers are compared on the basis of membership in the specific formal associations church, Farm Bureau, Parent-Teacher Associations, veterans' associations and fraternal associations.

There is conflicting evidence on this point. In the two organizations to which people in the sample most frequently belonged--the church (Table 17) and Farm Bureau (Table 18)--there were significant differences. For church chi square was 7.91 where significance at the 1 per cent level with 1 d.f. is 6.64. For the Farm Bureau chi square was 7.59 where significance at the 1 per cent level with 1 d.f. is 6.64. A larger proportion of members belonged to these

Table 17. Members and nonmembers by membership in churches.

| Church membership | Members | Nonmembers | Total |
|---------------------------|-----------|------------|------------|
| Belong to churches | 220 | 200 | 420 |
| Do not belong to churches | <u>48</u> | <u>78</u> | <u>126</u> |
| Total | 268 | 278 | 546 |

Table 18. Members and nonmembers by membership in Farm Bureau.

| Farm Bureau membership | Members | Nonmembers | Total |
|------------------------------|-----------|------------|------------|
| Belong to Farm Bureau | 171 | 145 | 316 |
| Do not belong to Farm Bureau | <u>97</u> | <u>133</u> | <u>230</u> |
| Total | 268 | 278 | 546 |

associations. However, in the case of fraternal associations (Table 19) and Parent-Teacher Associations (Table 20) and veterans' associations (Table 21) there were no significant differences. Chi square was less than one in all cases.

Since the null hypothesis was rejected in only two cases, the original proposition that there will be a significant difference between members and nonmembers when compared on the basis of belonging to specific formal associations is supported in only two out of the five cases. The direction of the difference is as predicted in those two cases in that a larger proportion of cooperative members are also church and Farm

Table 19. Members and nonmembers by membership in fraternal organizations.

| Fraternal organization membership | Member | Nonmember | Total |
|--|------------|------------|------------|
| Belong to fraternal association | 36 | 41 | 77 |
| Do not belong to fraternal association | <u>232</u> | <u>237</u> | <u>469</u> |
| Total | 268 | 278 | 546 |

Table 20. Members and nonmembers by membership in Parent Teacher Associations.

| P.T.A. membership | Members | Nonmembers | Total |
|-------------------------|------------|------------|------------|
| Belong to P.T.A. | 40 | 37 | 77 |
| Do not belong to P.T.A. | <u>228</u> | <u>241</u> | <u>469</u> |
| Total | 268 | 278 | 546 |

Table 21. Members and nonmembers by membership in veterans' organizations.

| Veterans' organization membership | Members | Nonmembers | Total |
|---|------------|------------|------------|
| Belong to veterans' organization | 18 | 19 | 37 |
| Do not belong to veterans' organization | <u>250</u> | <u>259</u> | <u>509</u> |
| Total | 268 | 278 | 546 |

Bureau members.

Participation in informal cooperative ventures. There is another aspect of the proposition that participation is a pattern that may have important application to farmer cooperatives. The previous section on participation dealt only with membership in formal associations. Another aspect might deal with the relation of informal participation to formal participation. Duncan set up three categories of participation: (1) formal participation as we have been using it in this dissertation, (2) semiformal participation such as attendance at public events such as movies, baseball, parades, festivals, athletic contests, plays, lectures and social banquets, and (3) informal participation such as meals with friends, visiting, parties, borrowing and lending, fishing trips with friends, taking care of others' children and shopping. He found that individuals who participated to a high degree in one type also were likely to do so in the other types.¹ Kaufman used visiting patterns as a measure of informal association in his New York study and his data show that there is a positive relationship between informal and formal participation, i.e., those who have the most informal contacts also² belong to the most formal associations.

Several factors might explain these findings. It is

¹Duncan and Artis, op. cit., p. 37.

²Kaufman, Prestige classes in a New York community, p. 22.

possible that certain people have personality traits that make it easier and more satisfying from their point of view to associate and work with other people on both an informal and formal basis. It is also quite possible that some of the same selective factors in terms of prestige rank, occupation, finances, time, educational background and understnading may operate in both formal and informal participation.

One might expect that a larger proportion of those who participate in small informal cooperative ventures such as work exchange, cooperative use of machinery and joint ownership of breeding stock would be members of cooperatives than would those who do not cooperate on an informal basis. Here again, it might be argued that working together cooperatively is something that has to be learned and once leared on an informal basis it is more apt to be carried over into formal cooperative activity.

One might expect to find that farmers who cooperate on an informal basis would more often be members of formal cooperatives. Hypothesis in the null form: There is no difference when members and nonmembers are compared on the basis of participation or nonparticipation in informal cooperative ventures as categorized below.

There is a highly significant difference when members and nonmembers are compared (Table 22). Chi square is 7.08 where signifioance at the 1 per cent level with 1 d.f. is 6.64. The null hypothesis is rejected.

Table 22. Members and nonmembers by participation in informal cooperative ventures.

| Informal cooperative ventures | Members | Nonmembers | Total |
|---|-----------|------------|------------|
| Participate in informal cooperative ventures | 211 | 191 | 402 |
| Do not participate in informal cooperative ventures | <u>57</u> | <u>87</u> | <u>144</u> |
| Total | 268 | 278 | 546 |

Since the null hypothesis is rejected, the original proposition that a larger proportion of farmers who cooperate on an informal basis will be members of formal cooperatives is supported.

Although more members than nonmembers participate in three informal ventures, there is no significant difference when members and nonmembers are compared on the basis of number of informal cooperative ventures in which they engage.

Socio-economic status. The positive relationship between social status and general formal association membership has been well validated. Anderson reports that it is the members of the upper class families who are the participants; they belong, hold offices and serve on committees.¹ In his New York study Kaufman found that there was a direct relationship between prestige class and organizational memberships and

¹Anderson, Family social participation and social status self-ratings, p. 253.

leadership positions.¹ In his Kentucky study Kaufman, using income² as an index of status, found a highly significant positive relationship between income and formal participation.³ Mangus and Cottam found that with each increase in level of living scores there was an increase in all four categories of his participation index--affiliation, contributions,⁴ committee work, and officerships. Duncan found that,

The higher prestige groups had on the average higher participation scores of all types than the lower prestige groups, an evident direct relationship between participation and prestige scores.⁵

None of the studies of farmer cooperatives reviewed dealt specifically with this factor as one operating selectively in determining membership in farmer cooperatives. Computations from Kaufman's New York data indicated that farmer membership in the G.L.F. and Dairyman's League increased in direct relation to rise in prestige classes.⁶

¹Kaufman, Prestige classes in a New York rural community, p. 22.

²Kaufman, Participation in organized activities in selected Kentucky localities, p. 19.

³There is a generally recognized positive relationship between income and prestige rating. For specific validation see Duncan and Artis, op. cit., p. 28.

⁴Mangus and Cottam, op. cit., p. 52.

⁵Duncan and Artis, op. cit., p. 40.

⁶Kaufman, Prestige classes in a New York rural community, p. 10, 18.

Because of the economic nature of cooperatives in Iowa it is quite possible that those people in the very high socio-economic status¹ might not belong to cooperatives. In most cases they may be big operators who can get the same savings by buying or selling directly rather than through the cooperative. They probably would also have other social and prestige groups with which they were connected that would give them more status than being active in the cooperative.

The proposition is suggested that members and nonmembers will differ significantly when compared on the basis of socio-economic status.

Hypothesis in the null form: There is no difference when members and nonmembers are compared on the basis of socio-economic status.

There is a significant difference when members and nonmembers are compared (Table 23). Chi square is 10.16 where significance at the 5 per cent level with 4 d.f. is 9.49. The null hypothesis is rejected. Care should be used in generalizing due to the small number, four, in one cell of the table.

With the exception of the very high status groups cooperative membership increases with socio-economic status.

Since the null hypothesis is rejected, the original proposition that there would be a significant difference when members are compared with nonmembers on the basis of socio-

¹William H. Sewell. A short form of the farm family socio-economic status scale. Rural Soc. 8: 161-170. 1943.

Table 23. Members and nonmembers by socio-economic status score.

| Socio-economic status score | Members | Nonmembers | Total |
|-----------------------------|----------|------------|-----------|
| 60 - 69 | 29 | 49 | 78 |
| 70 - 79 | 94 | 105 | 199 |
| 80 - 84 | 79 | 71 | 150 |
| 85 - 89 | 62 | 44 | 106 |
| 90 - 93 | <u>4</u> | <u>9</u> | <u>13</u> |
| Total | 268 | 278 | 546 |

economic status is supported.

The Relation of Selected Factors to Differential Member Participation in Cooperatives

The previous section dealt with a comparison of members and nonmembers on the basis of certain selected personal and social characteristics. This section, the main focus of the dissertation, deals only with members of cooperatives. It attempts to determine if selected personal, social and economic characteristics of members and selected characteristics of cooperatives and communities are associated with different degrees of participation in farmer cooperatives.

Members will be analyzed on the basis of the same selected personal and social characteristics used in the previous section. In addition, member participation will be analyzed

in relation to the following selected areas of characteristics:

(1) reasons for joining and conditions under which members joined the cooperative, (2) understanding of cooperative principles and responsibilities, (3) identification with their cooperatives, (4) source and desire for information concerning cooperatives, (5) knowledge of facts about cooperatives, (6) satisfactions and criticisms of cooperatives, (7) characteristics of cooperatives to which they belong, and (8) community characteristics of the community in which they live.

Selected personal and social characteristics of members

Age. Age was found to be a significant factor when members and nonmembers were compared.

Rose found that men of the age group 30 to 49 attended¹ meetings most often and spoke up most often in these meetings. Goldhamer found² participation rates were relatively high until age 23, decreased rapidly until age 30, gradually increased to a maximum between ages 40 to 49 and then decreased again for those over 50 years of age.² In his Kentucky study Kaufman found that officerships increased rapidly between ages 20 and 40, went up slowly between 40 and 50, leveled off between 50 and 60 and decreased among members over 60.³ Mangus and Cottan

¹Rose, op. cit., p. 167.

²Goldhamer, op. cit., p. 38.

³Kaufman, Participation in organized activities in selected Kentucky localities, p. 29.

found that the most active members were those between 35 and 54 with relatively high activity until age 64.¹ Mayo found participation varied irregularly with age. He found the low point of participation at about 20 then a gradual increase which peaked at ages 35 to 39 and 45 to 49. There was decreased participation between ages 50 to 54 then the highest point was reached between ages 55 to 59.² Hay concluded that individuals from 35 to 54 had consistently and to a marked degree the highest participation scores in both formal and informal groups.³ Anderson and Plambeck concluded that families under 35 participated the least. They found no great differences in participation rates from ages 35 to 55.⁴

However, when age was related to participation in the strictly cooperative studies no positive relationships were found. Anderson and Sanderson found no difference in the use of Grange League Federation outlets by different age groups and concluded that age did not seem to be a significant factor related to patronage of this cooperative enterprise.⁵ Losey found that while older members tended to be more active in cooperatives in terms of attending meetings and patronizing

¹Mangus and Cottam, op. cit., p. 248.

²Mayo and Marsh, op. cit., p. 248.

³Hay, Social participation of individuals in four rural communities of the Northeast, p. 132.

⁴Anderson and Plambeck, op. cit., p. 15.

⁵Anderson and Sanderson, op. cit., p. 13.

the cooperative the difference was not significant.¹

There do seem to be some logical reasons that age, although related to membership in cooperatives, might not be as closely related to participation in cooperatives as it is in other formal associations. It should be recognized that some factors may have already been selective in the decision to become a member. General participation scores give much weight to meeting attendance and committee assignments. However, there are very few general meetings in the cooperative associations and most of them are of a very secondary nature. Since participation in cooperative meetings is not a general expectation of most people the young person need not worry about whether he will be accepted by the group or have to take an active part in the meeting. Committee assignments may be important in most groups and in general the older members get the important committee assignments. However, there are few committee assignments in most cooperatives and thus the factor of age may not operate against the younger members' participation score in cooperatives. Young and old alike can patronize because in the main this is a very impersonal relationship and age would probably not be an important factor in patronage unless it was affected by short run price differentials between the cooperative and its competitors. In the responsibility of financing, risk bearing and talking about the cooperative the younger members might be at a disadvantage.

¹Losey, op. cit., p. 202.

They would probably have less capital to provide. They probably would not be accepted in an advisory capacity if they attempted to boost their cooperative as readily as would the older people. However, the younger members might be just as interested as older members to learn more about their cooperative, support an educational program and talk to neighbors about the cooperative.

It should also be pointed out that many cooperatives force cancellation of membership if no business is transacted with the cooperative for a period of two or three years. Thus, the older members could not indefinitely hold memberships without participation to some extent.

On the basis of the review of literature related specifically to cooperatives and the reasoning presented directly above the proposition is suggested that there will be no significant relationship between member participation scores and age. Hypothesis in null form: There is no relationship between member participation scores and the age of the members.

The two variables, age of member and participation scores, were plotted against each other on a scatter diagram. Inspection of these data yields little evidence to disprove the null hypothesis. There is no apparent relationship between these factors that would allow one to predict participation scores from age of member.

Since the null hypothesis is not rejected, the original

proposition that there is no significant relationship between participation scores and age of member is supported.

Education. Goldhamer concluded that the frequency of attendance at meetings increased as educational level increased, but mean attendance frequency per association was highest among those who had completed three or four years of high school.¹ He also found that while the more highly educated people held more leadership roles this was largely a function of the number of associations to which they belonged. There was little variation among different educational levels when judged by the proportion of organizations in which officer-ships² were held.

Rose found that those with the most education did not speak up in meetings any more frequently than those in the lower educational levels. In general those with some high school training spoke up more often than those with no high school or those who graduate or go beyond high school.³ Mangus and Cottam found similar evidence and concluded that those who had attended but not completed high school, when compared with those who had completed or not attended high school,⁴ were the most active in formal participation.

¹Goldhamer, op. cit., p. 38.

²Ibid., p. 59.

³Rose, op. cit., p. 175.

⁴Mangus and Cottam, op. cit., p. 42.

Lindstrom found voluntary organizations were supported best by those who advanced farthest in school. He found the greatest overall difference between those who had less than eighth grade education and those who had eighth grade education or more. There was little difference between those who had completed eighth grade but not graduated from high school and those who had graduated from high school when they were compared on the basis of being on committees or boards of directors. However, there was a great difference between these two groups in terms of being officers, paying dues, and taking part in programs. The higher the education the greater¹ the participation in these activities.

Hay found there was significantly higher participation in all communities when those with ninth grade and above education were compared with those who had eight grades or less.²

In his Kentucky study Kaufman concluded that the tendency for persons of higher educational rank to assume leadership in organized activities was a notable fact. Persons with more than four years of college, in comparison with those of less than four years of schooling, were 40 times as likely to hold³ office in organizations and held 100 times as many offices.

¹Lindstrom, op. cit., p. 109-111.

²Hay, Social participation of households in selected rural communities of the Northeast, p. 146.

³Kaufman, Participation in organized activities in selected Kentucky localities, p. 12.

Anderson and Plambeck found that there was a direct¹ relation between schooling and participation. Anderson and Smith concluded that husbands and wives with the most schooling² participated most actively in organizations.

In the cooperative studies educational level has also been found to be a significant factor. Stern found that there was a tendency for those members with more formal education to attend and participate in meetings to a greater extent than³ those with less education. Losey also found that those who had at least completed high school more often attended meetings⁴ and were more regular patrons.

It would seem reasonable that these same generalizations would hold for participation in farmer cooperatives as measured by this participation score. It seems logical that it would apply especially to the elements of the score dealing with understanding, being willing to finance, bearing risks, making constructive criticisms, desiring more information and willingness to finance education.

Higher educational level should bring about proficiency in speaking, writing and development of the understanding and skills of working with people. Education should provide a

¹Anderson and Plambeck, op. cit., p. 16.

²N. A. Anderson and Harold E. Smith. Formal and informal participation in a New York village. N. Y. (Ithaca) Agr. Exp. Sta. Dept. Rural Soc. Mimeo. Bul. 28. 1952. p. 4.

³Stern and Doran, op. cit., p. 30.

⁴Losey, op. cit., p. 139.

more sound body of understanding upon which to determine alternatives, analyze data and make decisions. On the assumption that the member will belong to the cooperative only if it is to his best advantage one might expect him to be more active as a member if he is of a higher educational level.

Participation scores are expected to differ significantly when compared on the basis of the amount of formal education which members have. Hypothesis in the null form: There is no difference in member participation scores when they are compared on the basis of the amount of formal education, as categorized below, which members have.

¹
There were no significant differences in participation scores. There was some tendency for members in higher educational levels to have higher participation scores (Table 24).

Table 24. Participation of members by amount of formal education.

| Amount of education | Members | | |
|---------------------|-----------|------------|--------------------------|
| | Number | Per cent | Mean participation score |
| 0 to 7 years | 34 | 12.7 | 41.6 |
| 8 years | 114 | 42.5 | 44.8 |
| 9 to 11 years | 44 | 16.4 | 45.2 |
| 12 years | 58 | 21.7 | 46.0 |
| More than 12 years | <u>18</u> | <u>6.7</u> | 50.4 |
| Total | 268 | 100.0 | |

¹If the data were gathered as a continuous variable the results might have been significant. If the assumption is made that the categories listed in Table 24 represent a continuous variable (that the difference between each category is the same) and the appropriate analysis completed there is a significant difference.

There was little difference in scores among those who have completed eighth grade, gone to high school, and completed high school. The greatest differences occurred between these three groups and those members who had either not completed the eighth grade or those who had gone beyond high school.

There are no significant differences in participation scores. F is 1.44 where significance at the 5 per cent level is 2.40 (Table 25). There is not sufficient evidence to reject the null hypothesis.

Table 25. Analysis of variance cooperative participation scores by amount of formal education.

| Source of variation | Degrees of freedom | Sum of squares | Mean squares |
|---------------------|--------------------|------------------|--------------|
| Between groups | 4 | 989.55 | 247.39 |
| Within groups | <u>263</u> | <u>45,090.96</u> | 171.45 |
| Total | 267 | 46,080.51 | |

Since the null hypothesis is not rejected, the original proposition that participation scores would differ significantly when members are compared on the basis of the amount of formal schooling is not supported.

Stage of family cycle. In his labor study Kyllonen found that single union members attended meetings most often and heads of childless married couples attended more often than those with children.¹ Anderson and Smith found that families

¹Toimi E. Kyllonen. Social characteristics of active

in the pre- and post-school periods were the most extensive¹ participators in organizations. Anderson and Plambeck found that families with children under ten years of age had lower participation scores than those with no children or children over ten.² Mangus found that a higher proportion of families having children were participants than those who had no³ children.

All of the above studies found that stage of family cycle was an important factor in differentiating social participation. However, the data are not comparable in terms of the classification of the stages of the family cycle, and there are some conflicting results which make an overall generalization unsafe.

It does not appear that the stage of family cycle as such would have a significant influence on participation in farmer cooperatives. Stage of family cycle often affects participation in that it is difficult for young married couples with children to attend meetings and serve on committees. However, neither of these forms of participation is very important or time consuming in most cooperatives. The stage of family cycle should not affect participation in the form

unionists. Amer. Jl. Soc. 56: 531. 1951.

¹Anderson and Smith, op. cit., p. 4.

²Anderson and Plambeck, op. cit., p. 15.

³Mangus and Cottam, op. cit., p. 41.

of patronage in terms of the time it takes.

A correlate of the stage of family cycle that might affect participation might be inability to assume proportionate financial burdens. Another related factor might be looking at prices from a more short run immediate need basis. These of course are usually characteristics of the early stage of family cycle. However, it should be recognized that it is quite possible that these, and perhaps other factors, have already been selective in determining whether the individual has become a member.

The younger farmer would probably not have the prestige with which to boost his cooperative or perhaps would feel his criticisms would not carry as much weight as those of older people. On the other hand, the younger members might be more willing to learn and change ideas about their cooperative and its function and role.

Though the review of literature is inconclusive and the possible logic of participation listed above is in conflict the strongest evidence seems to point to the proposition that participation scores will not be significantly different when compared on the basis of stage of family cycle. Hypothesis: There is no difference in member participation scores when they are compared on the basis of member stage of family cycle, as categorized below.

These categories were set up on the basis of the reviewed research. Kyllonen found differences on the basis of single,

childless married and married with children. Anderson and Smith found differences between families with pre-school and post-school children compared with families with children in school. Mangus and Cottam classified families on the basis of those who had children and had no children. All of these categories are contained in the above categories. However, it is recognized that the findings do not apply to all of them but merely to the categories used above.

The major difference in participation scores occurred between the members who had no children and those who had children (Table 26). There was very little difference in participation scores between the families who had children regardless of stage in family cycle.

There is no significant difference in participation scores (Table 27). F is 1.29 where significance at the 5 per cent level is 2.64. There is not sufficient evidence to

Table 26. Participation of members by the stage of family cycle.

| Stage of cycle | Members | | |
|-----------------------------|---------|----------|--------------------------|
| | Number | Per cent | Mean participation score |
| No children | 36 | 13.4 | 41.8 |
| Pre-school children only | 39 | 14.5 | 46.0 |
| Children in school | 143 | 53.4 | 45.6 |
| Children beyond school only | 50 | 18.7 | 45.8 |
| Total | 268 | 100. | |

Table 27. Analysis of variance cooperative participation scores by stage of family cycle.

| Source of variation | Degrees of freedom | Sum of squares | Mean squares |
|---------------------|--------------------|------------------|--------------|
| Between groups | 3 | 667.19 | 222.40 |
| Within groups | <u>264</u> | <u>45,413.32</u> | 172.02 |
| Total | 267 | 46,080.51 | |

refute the null hypothesis.

Since the null hypothesis is not rejected, the original proposition that participation scores would not differ significantly when compared on the basis of stage of family cycle, as categorized above, is supported.

Tenure status. Tenure was not a significant factor associated with membership in cooperatives.

The studies of Lindstrom,¹ Mangus and Cottam² and the Kaufman³ Kentucky study found that formal associations were supported best by owners when contrasted with part owners or tenants. Anderson and Plambeck found that a larger proportion of farm owners attended meetings than did either tenants or farm laborers.⁴

¹Lindstrom, op. cit., p. 109.

²Mangus and Cottam, op. cit., p. 41.

³Kaufman, Participation in organized activities in selected Kentucky localities, p. 23.

⁴Anderson and Plambeck, op. cit., p. 8.

While Duncan found that farm owners had slightly higher average formal participation scores, he stated that the difference was not important.¹ Alexander and Nelson concluded that generally tenure seemed to exert no general influence on membership and participation.²

In an Iowa study Anderson and Ryan concluded that there is a distinct lack of tenure class difference in social participation among the farmers living in the prosperous farming area studied. Unrelated tenants were somewhat less active.³

In cooperative studies Henning and Poling found that those members who did all their business with cooperatives, as compared with those who did part or none of their business, were more often tenants than owners. He raises the point that, "This analysis may mean that tenants are apt to be more cooperative minded than owners and that owners are more individualistic and hence less interested in cooperation."⁴ Losey found that although owners tended to be more consistent, in general, tenure status had little effect on participation in terms of meeting attendance and being regular customers.⁵

¹Duncan and Artis, op. cit., p. 39.

²Alexander and Nelson, op. cit., p. 70.

³Anderson and Ryan, op. cit., p. 281.

⁴Henning and Poling, op. cit., p. 10.

⁵Losey, op. cit., p. 204.

Here again, on the surface there seems to be conflicting evidence. However, the latest and most scientific studies seem to suggest the proposition that tenure is becoming less important and in many cases is no longer significantly associated with participation.¹ Hypothesis: There is no difference in member participation scores when they are compared on the basis of tenure as classified below.

Members were classified as owners if they were in the process of buying their farms. Owner-tenants were those members who had bought or were buying a farm and also renting additional land. As can be seen in Table 28, there was only

Table 28. Participation of members by tenure status.

| Tenure status | Members | | |
|---------------|-----------|-------------|--------------------------|
| | Number | Per cent | Mean participation score |
| Owner | 127 | 48.7 | 45.7 |
| Owner-tenant | 35 | 13.4 | 45.7 |
| Tenant | <u>99</u> | <u>37.9</u> | 43.8 |
| Total | 261 | 100. | |

a small difference in participation scores.

There is no significant difference in the scores. F is less than one (Table 29). There is not sufficient evidence to refute the null hypothesis.

¹A more complete discussion of some of the logic involved in this proposition may be found in the section on tenure and its relation to membership or nonmembership in cooperatives.

Table 29. Analysis of variance cooperative participation scores by tenure status.

| Source of variation | Degrees of freedom | Sum of squares | Mean squares |
|---------------------|--------------------|------------------|--------------|
| Between groups | 2 | 235.74 | 117.87 |
| Within groups | <u>258</u> | <u>44,009.07</u> | 170.58 |
| Total | 260 | 44,244.81 | |

Since the null hypothesis is not rejected, the original proposition that there would be no significant difference in participation when members were compared on the basis of tenure is supported.

Length of residence in community. A number of studies have dealt with the relation of length of residence in community to participation. Anderson and Plambeck¹ and Kaufman² in his Kentucky study found that in general participation increased with the length of residence in the community. Lindstrom divided his sample into those who had lived in the community ten years and those who had lived over ten years and found that the organizations were supported the most by those who had lived in the community the longest.³ Anderson and

¹Anderson and Plambeck, op. cit., p. 16.

²Kaufman, Participation in organized activities in selected Kentucky localities, p. 18.

³Lindstrom, op. cit., p. 109.

Smith came to the same conclusion.¹ Rowan² found that there was no significant relationship between length of residence in the present home and organizational affiliation of men.

In cooperative studies Henning and Poling found a slight tendency for those farmers who had lived on their farms for only a few years, as compared with those who had been on their farms longer, to be somewhat more interested and doing more business with their cooperative. However, he did not feel this tendency was important enough to warrant additional study.³ Though Anderson and Sanderson did not define long and short, they stated that persons with longer residence in the local community participated more in cooperatives than those who had resided only a short time.⁴ However, Losey⁵ found length of residence in the same community was not associated with participation.

Though there seems to be general agreement among the non-cooperative studies that length of residence is an important factor related to participation, there is not this general agreement in the cooperative studies. There may be logical reasons that length of residence is not an important factor

¹Anderson and Smith, op. cit., p. 4.

²Rowan, op. cit., p. 22.

³Henning and Poling, op. cit., p. 10.

⁴Anderson and Sanderson, op. cit., p. 15.

⁵Losey, op. cit., p. 203.

related to participation in farmer cooperatives. Basically cooperatives are not status giving groups, not class selective and have no restrictive membership qualifications except perhaps on an occupational basis. Membership fees are usually low. The prospective member does not have to be asked to join, he merely goes to the cooperative and pays his membership fee, or accumulates it through savings. Although cooperatives often are supposed to pass on new members, most cooperatives never do this formally. Thus the member does not have to be well known, prove himself over time or be accepted into the community before he becomes a cooperative member.

However, from the point of view of the cooperative as an economic association there are some considerations on both sides. Length of time in community would probably be associated with years farmed in many cases. It might be reasoned that the young inexperienced farmer might feel more confident in dealing with an organization run by fellow farmers. He might find in certain cooperatives that other farmers are willing to bear some of the costs of services, such as credit, that he as a beginning farmer needs. On the other hand, the beginning farmer may have to operate with more short run views and thus shop wherever he can save a cent or two at the moment. He also may not be able to bear the expense of financing or capital improvement that might pay him in the long run but be relatively expensive in the short run. It is possible that

the young farmer would not have had time to see what role an efficient and needed cooperative could perform. This might come with time and observation.

However, it is thought that the strongest research and logic points to the proposition that there will be no significant difference in participation scores when they are compared on the basis of length of member residence in the community.

The hypothesis in the null form: There is no difference in member participation scores when they are compared on the basis of length of residence in the community as categorized below.

The data for length of residence were available only in the categories used in Table 30.

Table 30. Participation of members by number of years they have lived in the community.

| Number of years | Members | | |
|-----------------|-----------|-------------|--------------------------|
| | Number | Per cent | Mean participation score |
| 1 - 5 | 110 | 41.0 | 44.7 |
| 6 - 10 | 66 | 24.6 | 44.4 |
| 11 - 15 | 29 | 10.8 | 45.1 |
| 16 - 20 | 17 | 6.4 | 47.7 |
| 21 or more | <u>46</u> | <u>17.2</u> | 45.9 |
| Total | 268 | 100. | |

There is no significant difference in the scores. F is less than 1 (Table 31). There is not sufficient evidence to refute the null hypothesis.

Since the null hypothesis is not rejected, the original proposition that there will be no significant difference in participation scores when members are compared on the basis of length of residence in the community is supported.

Table 31. Analysis of variance cooperative participation score by number of years members lived in community.

| Source of variation | Degrees of freedom | Sum of squares | Mean squares |
|---------------------|--------------------|------------------|--------------|
| Between groups | 4 | 193.42 | 48.36 |
| Within groups | <u>263</u> | <u>45,887.09</u> | 174.48 |
| Total | 267 | 46,080.51 | |

Number of years farmed. Length of time farmed was found to be a significant factor related to membership in cooperatives. There were little data in the review of literature on this relationship. Losey found that years of farming experience¹ was not related to participation.

The author has heard it said by some cooperative leaders that it is the members who have farmed for a number of years who are the members who really believe in and participate in cooperatives. The arguments presented are that it is only

¹Losey, op. cit., p. 143.

as the farmer get acquainted with the market system, sees some of the injustices or inefficiencies of it and sees other people solving some of their problems on a cooperative basis that they are really willing to cooperate. It is also pointed out that those farmers who have been through a depression and know the importance of a few cents on a bushel of corn or one cent on a gallon of gasoline continue to be active participating members in their cooperative. It is said that the younger farmers are making so much money now that one or two cents does not mean anything to them.

However, the soundness of these arguments is doubted. There also may be other more important influences on participation. Though field observations have shown a few members that validate the position stated above there seem to be more cases where it is not true. Also, since age is generally associated with years farmed and it was not expected or found to be significantly related to participation, there seems little reason to think that length of time farmed will be significantly related to participation. The null hypothesis is suggested: There is no difference in member participation scores when they are compared on the basis of the years members have farmed, as categorized below.

Due to the small number in one cell generalizations from this data should be made with care. However, it should be noted that the small cell has a mean score that is most divergent from the total mean and thus might contribute

greatly to the difference found (Table 32). The scores suggest some interesting hypotheses but are not significantly different.

The differences in the scores are not significant.¹ F is 1.02 where significance at the 5 per cent level is 2.13 (Table 33). There is not sufficient evidence to refute the null hypothesis.

Since the null hypothesis is not rejected, the original proposition that there is no significant difference in participation scores when compared on the basis of years members have farmed is supported.

Table 32. Participation of members by number of years they have farmed.

| Years farmed | Members | | |
|--------------|-----------|-------------|--------------------------|
| | Number | Per cent | Mean participation score |
| Less than 1 | 3 | 1.1 | 52.3 |
| 1 - 5 | 26 | 9.7 | 46.8 |
| 6 - 10 | 48 | 17.9 | 42.9 |
| 11 - 15 | 50 | 18.7 | 42.5 |
| 16 - 20 | 37 | 13.8 | 46.2 |
| 21 - 30 | 48 | 17.9 | 47.2 |
| 31 or more | <u>56</u> | <u>20.9</u> | 45.1 |
| Total | 268 | 100. | |

¹If the data were gathered as a continuous variable the results might have been significant. If the assumption is made that the categories listed in Table 32 represent a continuous variable (that the difference between each category is the same) and the appropriate analysis completed there is a significant difference.

Table 33. Analysis of variance cooperative participation scores by number of years members have farmed.

| Source of variation | Degrees of freedom | Sum of squares | Mean squares |
|---------------------|--------------------|------------------|--------------|
| Between groups | 6 | 1,060.10 | 176.68 |
| Within groups | <u>261</u> | <u>45,020.41</u> | 172.49 |
| Total | 267 | 46,080.51 | |

Size of farm in acres. McKay, in his cooperative study, found that members who attended the annual meeting were also growers who had considerably more than the average number of trees.¹ Losey found that size of farm operated was not a determining factor in participation at the annual meeting of the cooperative nor was it significantly associated with regular patronage.² It should be recognized that number of trees is not necessarily related to size of farm just as size of farm in Iowa is not necessarily a true index of the potential volume of business that a member might do with the cooperative.

If size is related to potential volume of business with the cooperatives there are some logical reasons that members with large farms might be more active than those with smaller farms. In economic terms the large volume farmer probably has

¹McKay, op. cit., p. 11-12.

²Losey, op. cit., p. 180-182.

more at stake. He has more patronage thus will probably bear more risks, should be helping to finance more and thus policy decisions may be more important to him. His cooperative activity may represent such a large part of his business that he rationally should allocate a relatively large part of his managerial ability to helping make cooperative decisions and trying to get policies favorable to his firm operating in the cooperative. However, it is quite possible that the large operator does not find his own best interest is the same as the medium and smaller sized farmers so he may not participate to the fullest extent. He may do a lot of business outside of the cooperative because he can get the same savings as an individual as do the smaller operators through cooperation. A degree of selectivity on the basis of size has probably already operated in determining those who are members.

Size of farm and socio-economic status have usually been found to be related, thus, the large farmer operators might be expected to participate more. However, it is quite possible that many smaller farmers, with lower socio-economic status, are really sold on the idea of cooperation and participate to a high degree.

On the basis of the Losey study, and what in the mind of the author is the strongest evidence, the null hypothesis is suggested: There is no relationship between participation scores and size of farm.

The two variables, size of farm and participation scores, were plotted against each other on a scatter diagram. An inspection of these data yields little evidence to disprove the null hypothesis. There is no apparent relationship between these factors that would allow one to predict participation scores from size of farm. There is not sufficient evidence to reject the null hypothesis.

Since there is not sufficient evidence to reject the null hypothesis, the original proposition that there will be no significant difference when members and nonmembers are compared on the basis of size of farm is supported.

General social participation. There is some evidence to support the proposition that social participation is a pattern. Those who participate at all, participate very actively and in many different kinds of activity. Anderson concluded from his studies that, "It has been demonstrated conclusively that membership in a specific formal organization in rural areas leads¹ to membership in other rural organizations."

There is a minimum of social skill needed for participation in any type of formal group activity. Many people do not feel that they possess those minimum skills and this may keep them from joining formal associations. Once the skills are learned and are found adequate in one group, the satisfaction may lead to the participation in other groups.

¹Anderson, Social participation and religious affiliation in rural areas, p. 243.

In addition to the group that may feel they do not have the minimum social skills there may be those who prefer to work alone. Others prefer the group method both from the point of view of individual satisfaction and group accomplishment.

M. E. John concluded from his study of the relationship of cooperative satisfaction and participation in cooperatives that, "Evidently experience in the group approach in meeting needs created greater confidence in it as a technique for meeting other needs."¹

There is probably a maximum degree of participation. If for no other reason it may be due to the actual time available to participate. Goldhamer found that the greater the number of associations a member belongs to the fewer times he attends meetings per membership held.² However, he accounted for this fact partially on the basis that those who belong to many organizations belong to several professional associations and these groups do not always meet locally and meet less frequently than the other associations.

Kyllonen found that active union members are more likely to come from the ranks of those who attend other formal organizations with some regularity.³

In studies dealing directly with cooperatives Losey found

¹John, op. cit., p. 16.

²Goldhamer, op. cit., p. 22-23.

³Kyllonen, op. cit., p. 532.

that meeting attenders and regular customers were found significantly more often among those who also belonged to two or more organizations in addition to the cooperative.¹ Henning and Poling found that patronage was associated with membership² in other farm organizations and other cooperatives. Anderson and Sanderson stated the general conclusion that cooperatives are supported chiefly by persons who participate in other community organizations, especially in general farm organizations.³ John found a high relationship between satisfaction and participation and found that the more organizations to which a farmer belonged the more likely he was to be favorable to the cooperative.⁴

On the basis of the completed research and reasons stated above it seems reasonable to expect a significant relation between participation in general formal organizational activities⁵ and participation in farmer cooperatives.

Hypothesis stated in the null form: There is no relationship between member cooperative participation scores and their general participation scores.

There is a statistically highly significant correlation coefficient between the two scores. The coefficient is .307

¹Losey, op. cit., p. 204.

²Henning and Poling, op. cit., p. 10.

³Anderson and Sanderson, op. cit., p. 15.

⁴John, op. cit., p. 16.

⁵As measured by the social participation score used in this study. See page 78.

where significance at the 1 per cent level is .159. The null hypothesis is rejected.

Since the null hypothesis is rejected, the original proposition that there would be a significant relationship between cooperative participation and general participation is supported.

Membership in other farm organizations. Henning and Poling found that those members who belonged to farm organizations did a greater percentage of their business with cooperatives than those who did not belong to farm organizations. He found that there was not much difference between those who belonged to only the Farm Bureau or the Grange or a combination of the two.¹ McKay concluded that it was significant that approximately two-thirds of those attending annual meetings² were members of other cooperatives or farm organizations.

Membership in farm organizations were counted as a part of the social participation score. The proposition was suggested that participation was a pattern. Those who belonged and participated in one organization probably also belonged to other organizations. There seems to be no valid reason to expect farmers who belong to a cooperative not to be active in other farm associations. In fact, it might be suggested that they would probably be more active in farm oriented

¹Henning and Poling, op. cit., p. 606.

²McKay, op. cit., p. 11.

associations than in other associations.

It seems reasonable to hypothesize that participation scores will differ significantly when members are compared on the basis of farm organization affiliation as categorized below. Those who are members of farm organizations will have the higher scores.

Hypothesis in null form: There is no difference in member participation scores when they are compared on the basis of farm organizational affiliation as categorized below.

The members were divided into three categories (Table 34). There were those who belonged to no farm organization, 34 per cent, those who belonged only to the Farm Bureau, 55 per cent, and 1 per cent belonged to two or more farm organizations. There was only about one point difference between the mean participation scores of the last two groups.

Table 34. Participation of members by membership in farm organizations.

| Farm organizations | Member | | |
|--|-----------|-------------|--------------------------|
| | Number | Per cent | Mean participation score |
| Belong to no farm organization | 91 | 34.0 | 42.4 |
| Belong to the Farm Bureau | 148 | 55.2 | 46.7 |
| Belong to two or more farm organizations | <u>29</u> | <u>10.8</u> | 45.5 |
| Total | 268 | 100. | |

Participation scores differ significantly. F is 3.04 where significance at the 5 per cent level is 3.03.(Table 35). The null hypothesis is rejected.

Since the null hypothesis is rejected, the original proposition that there will be a significant difference when members are compared on the basis of their farm organization affiliations is supported. Those with farm organization affiliation have the higher scores.

Table 35. Analysis of variance cooperative participation score by membership in farmer organizations.

| Source of variation | Degrees of freedom | Sum of squares | Mean squares |
|---------------------|--------------------|------------------|--------------|
| Between groups | 2 | 1,032.37 | 516.18 |
| Within groups | <u>265</u> | <u>45,048.14</u> | 169.99 |
| Total | 267 | 46,080.51 | |

Participation in informal cooperative ventures. Some of the writing in the field of urban sociology indicates that because of our complex more secondary society people no longer can fulfill many of their needs that were formerly fulfilled on an informal basis. Thus they organize formal associations to help fulfill these basic needs. It is also suggested that those who do not belong to formal associations may be participating satisfactorily on an informal basis.

However, some of the most recent research seems to refute this point of view. Rowan found that there was a significant

relationship between the extent of neighborliness, as measured by a neighborliness scale, and affiliation with formal groups.¹ Using visiting patterns as criteria Kaufman found that those who had the most informal contacts also belonged to the most formal associations.² Duncan and Artis studied informal, semiformal and formal participation in groups. They found that the individuals who participated to a high degree in one type of participation were also likely to do so in the other two types.³ Hay concluded that households with relatively high formal participation scores were generally also high on informal participation scores.⁴

It should be noted that the research above takes all types of formal and informal associations and combines them together into two or three scores or scales. There is no indication in these studies whether or not informal participation in one type of informal activity, say playing bridge, is associated with formal participation of the same type, in this case belonging to a formal bridge club. One might return to the statements of the urban sociologists and contend that the people join the formal bridge club because they cannot meet their needs in the informal clubs.

¹Rowan, op. cit., p. 51-52.

²Kaufman, Prestige classes in a New York rural community, p. 22.

³Duncan and Artis, op. cit., p. 37.

⁴Hay, Social participation of households in selected rural communities of the Northeast, p. 143.

In the case of the cooperative it might be contended that some people learn to be more cooperative than others. Those people who find that cooperative activity is satisfactory to them will participate cooperatively in many ways. They may participate on an informal basis in activities such as work exchange, joint use of machinery and tools and joint ownership of breeding stock. It might be contended that these members really have to participate in their informal cooperative activities. They have to finance together, bear risks together, make decisions together and take savings in proportion to their patronage of the enterprise. It might be reasoned that these patterns of participation are better understood in the informal ventures and that they might be expected to carry over into formal cooperative ventures. If informal participation brought understanding and satisfaction one might expect these people to join and participate in formal cooperative ventures.

The proposition suggested is that participation scores will differ significantly when compared on the basis of the number of informal cooperative activities in which they participate. Hypothesis in the null form: There is no difference in member participation scores by number, including none, of informal cooperative ventures in which the member participates.

Seventy-nine per cent of the members participated in one or more informal cooperative ventures. Those who participated

in the most informal cooperative ventures did have the highest participation scores but the difference was not significant (Table 36).

There is no significant difference in cooperative participation scores when compared on the basis of number of informal cooperative ventures. F is less than one (Table 37).

Table 36. Participation of members by number of informal cooperative ventures.

| Number informal ventures | Members | | Mean participation score |
|--------------------------|-----------|-------------|--------------------------|
| | Number | Per cent | |
| 0 | 57 | 21.3 | 44.4 |
| 1 | 62 | 23.1 | 44.1 |
| 2 | 101 | 37.7 | 44.9 |
| 3 | <u>48</u> | <u>17.9</u> | 47.4 |
| Total | 268 | 100.0 | |

Table 37. Analysis of variance cooperative participation scores by number of informal cooperative ventures.

| Source of variation | Degrees of freedom | Sum of squares | Mean squares |
|---------------------|--------------------|------------------|--------------|
| Between groups | 3 | 353.96 | 117.99 |
| Within groups | <u>264</u> | <u>45,726.55</u> | 173.21 |
| Total | 267 | 46,080.51 | |

Since there is not sufficient evidence to reject the null hypothesis, the original contention that participation scores would differ significantly when compared on the basis of the informal cooperative ventures in which the members are engaged is not supported.

Socio-economic status. Kyllonen found that active union members were not recruited mostly from the "have nots" but that the percentage of union meeting attendance rises with wage level.¹ He states that this tends to support the sociological principle that militancy is relatively more common among those who have already made some gains.² Anderson and Smith found that socio-economic status of village families was directly related to positive types of participation such as office holding and committee memberships.³ Mangus and Cottam found that with each increase in level of living scores there was an increase in all five categories of participation: affiliation, contributions, committee work, officerships, and

¹Though all data cited here are not in terms of socio-economic status it has been shown that there is a significant relationship between several methods used to stratify. For instance Duncan and Artis used seven stratification variables: judges prestige ratings, community prestige scores, occupation, income, education, office holding and socio-economic status. They found ". . . that the seven stratification variables considered were highly interrelated. . ." and statistically significant. See Duncan and Artis, op. cit., p. 40.

²Kyllonen, op. cit., p. 529.

³Anderson and Smith, op. cit., p. 5.

meeting attendance.¹ Kaufman in the New York study found² that formal leadership was associated with prestige class. In his Kentucky study he found that not only were persons at the higher socio-economic levels more likely to hold office than those of lower status, but leaders in the former grouping had more offices per person than those in the latter. There was a direct relationship between prestige class and leadership position.³ Duncan and Artis concluded that the higher prestige groups had higher participation scores of all types than did lower prestige groups, an evident direct relation⁴ between participation and prestige. Hay concluded that a consistent relation existed between socio-economic scores and⁵ participation scores.

Though cooperatives may differ from other formal associations to some extent it is not believed that this difference is great enough to change the proposition stated above, i.e., there will be a significant and positive relation between participation scores and socio-economic status. Hypothesis in the null form: There is no positive relationship between member participation scores and socio-economic status as measured by the Sewell short form.

¹Mangus and Cottam, op. cit., p. 52.

²Kaufman, Prestige classes in a New York rural community, p. 19-22.

³Kaufman, Participation in organized activities in selected Kentucky localities, p. 39.

⁴Duncan and Artis, op. cit., p. 40.

⁵Hay, Social participation of individuals in four rural

The coefficient of correlation is .208 where significance at the 1 per cent level is .159. The null hypothesis is rejected.

Since the null hypothesis is rejected, the original contention that there will be significant positive relation between participation scores and socio-economic status is supported.

The correlation is not as high as the ones obtained in the studies cited above. This may be due partially to the fact that cooperatives are not very exclusive in their membership. Many of the elements of participation in cooperatives can be fulfilled without broad direct social invitation or interaction. Thus social status may not play as important a part in cooperatives as in other voluntary associations.

Reasons for joining and conditions under which members joined the cooperative

Why members join cooperatives. Formal voluntary associations are formed around some special interest. It is assumed that members join formal associations because they have a common special interest. However, the interest does not necessarily have to be common but may be complementary.

A possible first step in determining why certain personal

communities of the Northeast, p. 133, and Hay, Social participation of households in selected rural communities of the Northeast, p. 145.

and social characteristics are associated with different degrees of participation in formal voluntary associations might be to determine why people say they join the associations. Field experience in community analysis has demonstrated that many associations have a very broad base of interest. In many cases there is no clear cut definition on the part of the member why he joined or even what the objectives of the association are. There is much evidence to support the contention that different people join the same association for different reasons.

Lindstrom makes the generalization that in giving reasons for joining associations members laid more emphasis on the distinctive functions of the association rather than their overlapping functions. In the Illinois study when members of business and education associations (including Farm Bureau, 4-H and cooperatives) were asked why they joined, over half said for information, benefits and services provided. One third said they were members because they thought that farmers should learn of the importance of organizations and that they should help the cause of farmers' organizations. Less than one tenth stated they were members so that they might help others.¹

In their Goodhue County, Minnesota, study Alexander and Nelson made the following statement about cooperatives:

¹Lindstrom, op. cit., p. 36, 125.

Underlying the extensive organization of cooperatives, one might expect to find certain fundamental beliefs. It is not easy, however, to discover just what these beliefs are. There is very little philosophy of cooperative in the sense of clearly defined theories. The farmers will say that they formed their cooperatives in self-defense, to eliminate the middle man, or to defend themselves against sharp dealing buyers. Perhaps the best way to summarize their attitudes toward cooperatives is to say that they believe in getting together to protect and promote their own interests. Underlying this belief is the conviction that one's destiny is in his own hands if he wishes to do something about it. The cooperative is an organizational technique that fits their needs; they have learned how to manipulate it; and they are not doctrinaire about it.¹

More specifically Anderson and Sanderson found that convenience in marketing and better prices were the two major reasons that New York dairy farmers joined cooperatives. The reasons differed on the basis of whether there was free choice in joining. Those farmers who said they had a choice in joining said they did so for better prices, sure markets, dissatisfaction with previous markets and because they believed in cooperation. Those who said they had no choice, joined because no other market was available, a partner was member, the League bought the market and everyone else was joining.²

According to John some farmers join cooperatives without critically evaluating the cooperative. "This was reflected by such reasons for joining as 'landlord a member,' 'persuaded to join,' 'everyone else was joining.'" Seventeen per cent of the members fell in this category.³

¹Alexander and Nelson, op. cit., p. 70-71.

²Anderson and Sanderson, op. cit., p. 8.

³John, op. cit., p. 19.

The proposition is suggested that people join the same type association, farmer cooperatives in this case, for different stated reasons. Hypothesis in the null form: There is no difference in stated reasons why people join the same type of associations, farmer cooperatives in this case.

The reasons that Iowa members gave for joining their cooperative were placed in six categories (Table 38). The exact

Table 38. Participation of members by reason given for joining cooperative.

| Reason for joining | Members | | Mean participation score |
|--|-----------|------------|--------------------------|
| | Number | Per cent | |
| Save money | 103 | 39.8 | 44.5 |
| Only source or outlet | 79 | 30.5 | 44.3 |
| Primary group pressure | 20 | 7.7 | 42.6 |
| Help farmers, the organization and the community | 20 | 7.7 | 44.5 |
| Automatic membership | 19 | 7.3 | 50.7 |
| Liked cooperative way | <u>18</u> | <u>7.0</u> | 51.8 |
| Total | 259 | 100.0 | |

meaning of all the member answers were difficult to determine. However, since the author took almost half of the schedules he is relatively sure of his interpretations of the answers in relation to these categories.

The largest group of farmers joined to save money. This

group saw the cooperative almost wholly as an economic association that offered them the opportunity to save money. Immediate dollar saving was the main consideration. The refund often symbolized their cooperative.

The next largest group joined because they defined the cooperative as the only source or outlet for their products or because it was at least certainly the most convenient. In the mind of this group they did not really have a choice in becoming a member; it was dictated by the situation. They could have hauled their grain to a neighboring town but it would not have been as economical or convenient.

About equal numbers of members listed the next four reasons for joining. One group joined mainly because of primary group pressure. They joined because their neighbors, friends or relatives asked or pressured them. This group also felt that they had little opportunity to think through the decision to join. They joined because of the social pressure of these primary group members.

The reason given by another group is rather difficult to describe. These members apparently were not thinking of themselves as much as they were thinking of farmers in general and their community. Altruism rather than selfish interest was the main stated motive. They joined to help the farmers, to help the cooperative and to help their community.

Another group said they automatically became members.

In the main this occurred by trading at the cooperative and accumulating enough savings at the cooperative to become a member automatically. Care was used to place in this category only those people who left the impression that they really did not care if they were members or not. In fact, some of them stated that they did not want to be members but received a certificate through the mail which made them nominally members. A few of this group became members when the business changed from a farmer corporation stock company to a farmer cooperative and part of the stock was transferred as a membership certificate. This group also had the attitude that they did not really like it but there was little they could do about it.

The last group were those who specifically stated they liked the cooperative way of doing business. This group placed main emphasis on farmers associating together to solve their own problems, controlling their own business, making their own decisions and operating at cost. In a number of cases the idea was expressed that cooperating together was better than competition. Actual money savings were not mentioned frequently by this group. This is the closest answer obtained to the so called "religious philosophy" of cooperation.

The same two main reasons that Anderson found in New York

¹Frank Robotka. Philosophy of cooperation. American Cooperation 1950. Washington, D. C., Amer. Institute of Cooperation. 1950. p. 156-157.

are also the main stated reasons for joining in Iowa. These reasons were to save money, or better prices, and convenience or the only source or outlet for the product. Suggestion and probable pressure from neighbors, friends and relatives came next in importance. This may show the force of social pressure that primary groups exert on their members or it may show the high value that primary group members place on information and advice obtained in the primary group. It may be a combination of the two.

Many of those who joined for convenience, because of social pressure and automatically became members may, as John suggested above, have joined the cooperative without critically evaluating it or realizing implicit responsibilities that accompany membership.

Six different major reasons were given for joining farmer cooperatives. The null hypothesis is rejected.

Since the null hypothesis is rejected, the original proposition that people join the same type of association for different stated reasons is supported.

Reason for joining the cooperative. The hypothesis has already been tested and supported that different people join the same association for different reasons. It might also be contended that the degree of participation might be related to the specific reason for joining the cooperative. It is conceivable that if someone were forced to join the coopera-

tive and then that pressure ceased to exist that person might not participate to the extent that a person would who joined a cooperative of his own free will. Then again, a person might have joined under force and found out that the cooperative was satisfying his needs so he might continue to participate to the full extent. It is possible that people might join the cooperative with different expectations and all of those expectations be fulfilled acceptably by the cooperative.

There is little direct information on this point in the literature reviewed. Rose determined the reasons that members joined the Union. After analyzing the data he concluded that the reasons that members joined the union did not produce the loyalty to the principles of unionism and that it is fair to assume that most of the new members went into the union without knowing much about the union and having relatively neutral attitudes toward it.¹ The above data deal with the relation of reasons for joining to solidarity. However, it might be inferred that the lack of knowledge that union members have about their unions might also be true of cooperative members and their cooperatives. Without either loyalty or understanding it is difficult to imagine why members would participate to a very full degree.

Some cooperative studies determined the reason for continued patronage of the cooperative² but in no case were

¹Rose, op. cit., p. 60-61.

²For instance see Losey, op. cit., p. 112.

reasons for joining related to general participation in co-operatives.

On the basis of the widely different reasons given for joining cooperatives and the implicit different definitions of the cooperative it seems reasonable to suggest that member participation scores will differ significantly when compared on the basis of reason given for joining the cooperative.

Hypothesis in the null form: There is no difference in member participation scores when they are compared on the basis of stated reasons for joining the cooperative.

The mean participation scores ranged from 42 to almost 52, as indicated in Table 38. The group that joined because of primary group pressure had the lowest score while those who liked the cooperative way had the highest score.

There is no significant difference between the scores (Table 39). F is 1.90 where significance at the 5 per cent level is 2.40. There is not sufficient evidence to reject the null hypothesis.

Since the null hypothesis is not rejected, the original proposition that participation scores would differ significantly when compared on the basis of reason for joining the cooperative is not supported.

Urgency of need at the time the member joined. Even though reason for joining was not found to be a significant factor related to participation, the urgency of the need and

Table 39. Analysis of variance participation score by reason for joining the cooperative.

| Source of variation | Degrees of freedom | Sum of squares | Mean squares |
|---------------------|--------------------|------------------|--------------|
| Between groups | 5 | 1,628.53 | 325.71 |
| Within groups | <u>253</u> | <u>43,274.10</u> | 171.04 |
| Total | 258 | 44,902.63 | |

the type of urgent need might be an important factor.

Merton and Lazarsfeld state that, "It is of course ancient wisdom that groups are integrated more closely when¹ they are faced with an external threat."

It might be inferred from this statement that those members who join because of some felt threat or urgent need might also participate more over time. Many cooperative leaders state that those members who helped organize the cooperative under some type of crisis such as low grain prices, high petroleum prices, or no premiums for butterfat are the members who really believe in and participate in their cooperative. It is generally believed that these members really know what conditions were before the cooperative existed, how much the cooperative has improved conditions and can project their thoughts to what might happen to the market if the cooperative were to go out of business. Even though they were not

¹Robert K. Merton and Paul Lazarsfeld. Continuities in social research. Glencoe, Ill., Free Press. 1950. p. 37.

original founders those who joined under some sort of crisis situation, defined as an urgent need, might possess many of these same feelings that might lead to full participation.

It might be hypothesized that the urgent reason for joining might be a significant factor associated with differential participation. Hypothesis in the null form: There is no difference in member participation scores when compared on the basis of the stated urgent need, including no urgent need, at the time the member joined the cooperative.

The analysis of the data shows that there may be different urgent needs (Table 40). When asked the question, "What

Table 40. Participation of members by urgent need at time of joining.

| Urgent need | Members | | |
|---|-----------|------------|--------------------------|
| | Number | Per cent | Mean participation score |
| 1. No urgent need | 132 | 49.2 | 45.4 |
| 2. Good market | 65 | 24.3 | 45.0 |
| 3. Only source or supply | 25 | 9.3 | 43.2 |
| 4. Money savings | 16 | 6.0 | 43.3 |
| 5. Specific dissatisfaction with existing outlets | 15 | 5.6 | 48.9 |
| 6. Social pressure | <u>15</u> | <u>5.6</u> | 43.3 |
| | 268 | 100.0 | |

was your urgent need at the time you joined?", approximately half said none. This could be due to the fact that there was no urgent need or the interviewee could not recall that urgent need at the time of the interview.

The answers of those who felt that they had an urgent need were classified in the following manner.

The urgent need of the largest number was the need for a good market. This group emphasized the general market aspect, the need for a market, a sure market and the impact of the cooperative on the market rather than better prices.

The second group said the urgency came about through the cooperative being the only source or outlet for their products. They had a need for a source or market and the cooperative met this need. Only a very few of this group helped form the cooperative. Most of them joined already existing cooperatives.

The third group has the characteristics of both of the groups above. This group had need for the product but their emphasis was not so much on the impact of the cooperative on the market in general terms but they said they needed the money savings. This urgent need was often expressed in terms of short run better price.

The fourth group felt their urgent need in terms of dissatisfaction with existing agencies already operating in the market. They mentioned specifically the need for additional competition with already existing agencies in the local market and the desire for better service. This group is related to

the first group mentioned above. However, they thought much more in terms of a specific business with which they were dissatisfied.

The urgent need of the last group was felt through social pressure. The pressure on them by their friends, neighbors and relatives created the urgent need for them to join.

The differences in scores were not significant (Table 41).

Table 41. Analysis of variance cooperative participation scores by urgent need at time of joining.

| Source of variation | Degrees of freedom | Sum of squares | Mean squares |
|---------------------|--------------------|------------------|--------------|
| Between groups | 5 | 423.71 | 84.74 |
| Within groups | <u>262</u> | <u>45,656.80</u> | 174.26 |
| Total | 267 | 46,080.51 | |

F is less than one. There is not sufficient evidence to reject the null hypothesis.

Since the null hypothesis is not rejected, the original contention that the urgent reason for joining the cooperative would be a significant factor related to differential participation is not supported.

The fact that the group having the highest scores were those who had specific dissatisfaction with an existing outlet might provide a fruitful hypothesis for future research.

Source of first information about cooperatives. Another factor that might have some bearing on the degree of participation in farmer cooperatives is where the member first heard about cooperatives.

It is rather difficult to make a very strong case for the importance of this factor. The main problem may be that there is no way of knowing what the conditions were under which the member first heard about cooperatives or what transpired between the time of the first hearing about the cooperative and the decision to join and present participation. However, it might be posited that if members learned about cooperatives from a source that they respected and that source was relatively favorable to cooperatives and understood cooperatives the potential member might be well informed and thus might participate to a greater extent. However, there is little basis for assuming the first contact was well informed. It is possible that the source of the first information might also be returned to for additional information in making the decision to join. However, present participation is so far removed from initial contact with cooperatives that it is doubted that it is a significant factor. No data from past research are available on this point.

The null hypothesis seems most logical: There is no difference in member participation scores when they are compared on the basis of where they first learned about cooperatives, including inability to remember where they first learned

about cooperatives.

There were five main sources of first information about farmer cooperatives (Table 42).

The greatest number first heard about cooperatives through a cooperative. Some of these members knew about and

Table 42. Participation of members by source of first information about cooperatives.

| Source of first information | Members | | |
|--|-----------|------------|--------------------------|
| | Number | Per cent | Mean participation score |
| 1. Unable to remember | 32 | 11.9 | 45.0 |
| 2. Cooperatives and their employees and officers | 82 | 30.6 | 43.94 |
| 3. Relatives | 70 | 26.1 | 45.7 |
| 4. Neighbors and friends | 54 | 20.2 | 43.7 |
| 5. Extension Service and farm organization | 15 | 5.6 | 51.7 |
| 6. Secondary sources such as newspapers, magazines and radio | <u>15</u> | <u>5.6</u> | 46.7 |
| Total | 268 | 100.0 | |

watched the cooperative operate, others traded at the cooperative although they were not members and others learned about the cooperative from cooperative employees and board members. The latter were not described as neighbors, relatives or friends.

The importance of the primary group as a carrier of

information is evident in the next two groups. Twenty-six per cent of the members learned about cooperatives from relatives and 20 per cent from neighbors and friends. More than five per cent first learned about cooperatives through educational programs of the Extension Service and farm organizations. The remaining group learned through secondary sources such as farm papers and magazines, newspapers and the radio.

Though participation scores were not significantly different it may be noted that those having the lowest scores learned from neighbors and friends and through the cooperative while the most active participants heard first through the Extension Service and farm organizations.

There is no significant difference in the scores. (Table 43.) F is 1.82 where significance at the 5 per cent level is 2.25. There is not sufficient evidence to refute the null hypothesis.

Since the null hypothesis is not rejected, the original contention that there will be no significant difference in

Table 43. Analysis of variance cooperative participation scores by source of first information about cooperatives.

| Source of variation | Degrees of freedom | Sum of squares | Mean squares |
|---------------------|--------------------|------------------|--------------|
| Between groups | 5 | 934.49 | 186.90 |
| Within groups | <u>262</u> | <u>45,146.02</u> | 172.31 |
| Total | 267 | 46,080.51 | |

participation scores when members are compared on the basis of where they first learned about cooperatives is supported.

Distance from the cooperative. Though most cooperatives in Iowa serve a relatively small area, a trade territory 10 to 15 miles in diameter, some cooperatives serve much larger territories. This is especially true of some creameries that have cream routes reaching out 50 to 60 miles. Some farmers belonged to elevators located 20 miles from their farmstead. Will this factor of distance from the cooperative be a significant factor related to participation in farmer cooperatives?

In his labor union study Kyllonen found that union solidarity and participation decreased as members moved to residential areas at greater distance from the Union Hall. He found this especially true of those members who lived outside of town.¹

In their study of general rural participation Anderson and Plambeck found that distance of residence from the social center did not appear to be significant in decreasing participation.² In his study of farmer cooperatives Korzan concluded that distance apparently was not an important factor in keeping members from attending the annual meeting. The average³ distance in this case was ten miles from the cooperative.

¹Kyllonen, op. cit., p. 532.

²Anderson and Plambeck, op. cit., p. 18.

³Korzan, op. cit., p. 5.

It seems doubtful that distance from cooperative will be a significant factor in determining participation in Iowa cooperatives. In the cases of two main types of cooperatives, petroleum and creameries, service is available on the farmstead. This is also true of many cooperatives which deliver feed and other supplies such as fertilizer, lumber and hardware. In the purchasing cooperatives sales are usually made in large volume so driving a few extra miles would not mean a great per unit cost. Meetings are held only once or twice a year and this should be no burden on those who live within 30 or 40 miles. Distance, within the range that Iowa farmers live from their cooperatives, should not affect financing, boosting their cooperative or getting cooperative information.

Hypothesis in the null form: There is no difference in member cooperative participation scores when compared on the basis of the distance members live from their cooperative place of business.

The distance members lived from their cooperatives ranged from less than one to 47 miles. Most of the members lived from three to eight miles from their cooperative. Only five members lived more than 20 miles from their cooperative.

The two variables, distance from the cooperative and the participation score, were plotted against each other on a scatter diagram. There is no apparent relationship between these factors that would allow one to predict participation

scores from the distance members live from their cooperatives. An inspection of these data yields little evidence to reject the null hypothesis.

Since the null hypothesis is not rejected, the original proposition that there will be no significant difference in cooperative participation scores when compared on the basis of distance of members from their cooperatives is supported.

Number of cooperatives to which the member belongs.

Goldhamer found that the more associations to which an individual belonged the fewer times he attended meetings per membership held.¹ However, Stern found that the number of cooperatives to which members belonged had a direct relationship to participation in terms of attending meetings, holding office, voting on policy or delegates and per cent of business done with cooperative.²

It seems logical that there should be some limit to the number of organizations in which an individual can participate. The real question in this case might be whether that limit is reached within the range of participation found here. The limiting factor in the case of cooperatives may be to attend meetings, accept officer responsibility and participate in informal activities, such as talking with neighbors about the cooperative. Another limiting factor might be the amount of

¹Goldhamer, op. cit., p. 22-23.

²Stern, Farmers' support of cooperatives, p. 11-14.

money available to join and finance cooperatives. An important factor in this study is that eight per cent of the 58 per cent that belonged to more than one cooperative belonged to different cooperatives that offered the same services. Thus, at least in terms of per cent of business done with the cooperative the member could not do 100 per cent with both. If a person belonged to several cooperatives they were probably not all equally important to him and thus he might allocate his participation between them. However, it is doubted that these factors are important enough to suggest that participation will differ significantly by number of cooperatives to which members belong (Table 44).

Table 44. Participation of members by number of cooperatives to which they belong.

| Number of cooperatives | Members | | Mean partici- pation score |
|---------------------------|-----------|------------|-------------------------------|
| | Number | Per cent | |
| 1 | 112 | 41.8 | 44.0 |
| 2 | 106 | 39.5 | 44.9 |
| 3 | 35 | 13.1 | 48.7 |
| 4 or more | <u>15</u> | <u>5.6</u> | 45.7 |
| Total | 268 | 100.0 | |

The null hypothesis is suggested: There is no difference in participation scores when members are compared on the basis of the number of cooperatives to which they belong.

F value is 1.15 where significance at the 5 per cent level is 2.64. There is not sufficient evidence to refute the null hypothesis (Table 45).

Table 45. Analysis of variance cooperative participation scores by number of cooperatives to which members belong.

| Source of variation | Degrees of freedom | Sum of squares | Mean squares |
|---------------------|--------------------|------------------|--------------|
| Between groups | 3 | 593.10 | 197.70 |
| Within groups | <u>264</u> | <u>45,487.41</u> | 172.30 |
| Total | 267 | 46,080.51 | |

Since the null hypothesis is not rejected, the original proposition that member participation will not differ significantly by number of cooperatives to which the member belongs is supported.

Years the member had belonged to the cooperative. There appears to be conflicting evidence on this point in labor union studies. Kyllonen found that among the present members of the union the more active were those who have been in the union the longest.¹ However, while Rose found the older

¹Kyllonen, op. cit., p. 529.

members were more willing to picket, more often read their contracts, felt they got a chance to take part in meetings and did speak up more often in meetings, he also found they did not want to finance more, they found dues too high and special assessments too frequent.¹

There are no data related to this point in the cooperative research reviewed.

In talking to cooperative leaders, one often hears the expression of concern about the indifferent participation of the members who joined recently. The thinking expressed involves the fact that those who pioneered in the organization of cooperatives had to fight and sacrifice to get the cooperative started and really appreciate what the cooperative has meant and means to farmers. Through the years most cooperatives have faced several crises and these usually bring with them identification and participation. It is reasoned, since the cooperative still exists, it must be rendering a service to the members and participation becomes more or less habitual.

There may be flaws in those arguments. Very few of the members who formed the cooperative may still be members. The purpose for which the cooperative was originally formed may no longer be important and yet the cooperative may not have adjusted to meet new needs. Many cooperatives may be supported not because of rational decisions but because of emotional

¹Rose, op. cit., p. 162-168.

attachment or other reasons.

Even though there is a recognized relation between age and years a member of cooperatives, it should be remembered that age was not expected to be, nor was it found to be, significantly related to participation. The new member has just as much opportunity to patronize, help finance and bear risks as the older members. New members would probably not be accepted in positions of authority or prestige as rapidly as older members, however. The relatively new member might be more adaptable to change and be willing to work for it in terms of information and education activities than the older member who may become "set" in his ways.

The most logical position seems to be the null hypothesis: There is no relationship between member participation scores when they are compared on the basis of length of time member had belonged to the cooperative.

The length of time members had belonged to cooperatives ranged from less than one year to 50 years. The average number of years members had belonged was eight and a half. A median was six years and the modal year is one where 12 per cent of the members were found.

The two variables, number of years the member had belonged to the cooperative and participation scores, were plotted against each other on a scatter diagram. There is no apparent relationship between these factors that would allow one to predict participation scores from the number of years

a person has been a member of the cooperative. An inspection of these data does not yield sufficient evidence to reject the null hypothesis.

Since the null hypothesis is not rejected, the original proposition that there will be no significant relationship between participation scores and years a member of the cooperative is supported.

Understanding of cooperative principles and responsibilities

Member understanding of basic cooperative principles.

There has been no systematic study of the level of basic member understanding about their local cooperative or cooperatives in general. Most of what in the past has been called understanding has dealt with knowledge of facts about the cooperative, not with understanding basic cooperative theory and explicit and implicit responsibilities that are inherent in becoming a cooperative member.

Though understanding as such has not been the focus of past research some findings related to it can be cited. In attempting to determine who were best informed about their cooperatives Stern and Doran not only found out member knowledge of facts but also what the member's definition of the cooperative was. This question was related to basic understanding about cooperatives. The answers showed that members had different degrees of understanding about what a cooperative was. When Stern and Doran combined both knowledge of

facts and understanding of cooperative principles, in terms of the definition of a cooperative, they found that the best informed members made the most use of their cooperatives in terms of percentage of business done with the cooperative, and they more often attended meetings.¹ They also found that:

The group which had the opportunity and which attended meetings had the broadest concept of what a cooperative actually is. This group defined a cooperative as 'an organization of farmers for mutual benefit' and in every instance said there was a need for farmer cooperatives.²

Losey attempted to determine member understanding of the rights of members. Though he does not discuss what constituted a correct answer to the question, it is assumed that this question may be related to theoretical understanding of cooperative principles as used here. Losey found that only a little over 25 per cent understood the rights of members. However, he did find that both attendance at meetings and patronage were associated significantly with understanding of the rights of members.³ Anderson and Sanderson state that attendance at meetings, patron-membership and regular patronage are all associated with knowledge possessed by the members. In this case the measurement of knowledge was based on how well members understood how membership was obtained, what the

¹Stern and Doran, op. cit., p. 19.

²Ibid, p. 18.

³Losey, op. cit., p. 227.

members' rights were and how local profits were used.¹

It seems logical to assume that if a member is going to participate in all the elements of cooperative participation he must have a good understanding of basic cooperative principles.

It is quite possible that a member might patronize the cooperative 100 per cent and still not understand much about the cooperative except that this was the most convenient source or outlet or that he was getting a little better short run price. However, even in relation to patronage it is doubtful that this uninformed member would patronize 100 per cent over time because the moment he could get a price advantage elsewhere he would trade there.

However, it is rather difficult to find logical reasons that a member would participate in the following activities to the fullest extent without a basic understanding of cooperative principles.

It is difficult to determine why a person would be willing to finance or bear additional risks in a cooperative unless he understood why this was necessary in terms of what a cooperative is, the basis for making a rational decision to finance and the obligations of those who stand to share in the savings.

It is difficult to determine why a person would be willing to give up part of his patronage refund for an educational

¹Anderson and Sanderson, op. cit., p. 30.

program unless he understood the need for education of the members of a cooperative and how important an informed membership is to the success of the cooperative. He would have to understand that no one else is going to carry out the educational program for him. Why should a person with little understanding of a cooperative want to make sure he had some current information and want additional information about cooperatives unless he understood why it is important for members to be well informed about their cooperatives?

The same things would probably apply to a person's willingness to take time, effort and the thought to boost his cooperative. He might relate to his friends the "good deal" he was getting on prices at the cooperative without understanding cooperatives. But most people would be cautious in advising friends and neighbors to join an organization without some understanding of it.

If a person had no understanding of such things as the possible impact of cooperatives on the market, long time as over against short time savings, responsibility to make the cooperative run as efficiently as possible, understanding of total savings not just price in market place, why would he not always inquire other places about prices and take the best price he could get?

Unless a member had some understanding of the structure of a cooperative why would he feel obligated to make constructive criticisms of his cooperative to the manager or

board?

Why should a farmer waste time going to cooperative meetings unless he understands how cooperatives are controlled and that he is the person who should be best qualified to help make the decisions of the cooperative that would maximize his individual firm's profits?

If the farmer's motivation is to be an active organizational member, office holder or to get some other type of prestige or status in the cooperative, will he not probably have to have a basic understanding of that organization and its operation before he will be accepted to these positions of responsibility?

Thus it seems logical to suggest the proposition that there will be a significant relationship between the cooperative participation scores and understanding of basic cooperative principles. The relationship will be positive. Hypothesis in the null form: There is no relationship between member participation scores and understanding of basic principles scores.

The same general procedure was followed in developing the Understanding of Basic Principles Score as was followed in developing the Cooperative Participation Score. Five elements were used in developing the score. Briefly, the elements and the measures of those elements were as follows:

¹For actual questions used, weighting of items and elements and brief discussion of the score, see the Appendix.

1. Control

- A. Who should have the right to vote
- B. Who has the right to determine what should be done with savings
- C. Should cooperative members vote on all important questions of policy
- D. What are the responsibilities of cooperative members in terms of voting

2. Savings

- A. How should savings be distributed
- B. What is the basis upon which cooperatives should or should not pay income tax

3. Finance

- A. Who should finance cooperatives
- B. What are member responsibilities in relation to financing

4. Risks

- A. Who has the responsibility to assume risks in cooperative

5. Patronage

- A. What are member responsibilities in relation to patronage
- B. Is there an obligation for members to patronize cooperatives

The scores are highly significantly related. The coefficient of correlation is .493 where significance at the 1 per

cent level is .159. The null hypothesis is rejected.

Since the null hypothesis is rejected, the original proposition that there will be a significant relationship between participation scores and understanding of cooperative principle scores is supported. The relationship is as expected, the higher the understanding score the higher the participation score.

Member definition of the cooperative as an agent or just another place to do business. Losey found that many members

. . .are customers or patrons largely on a buyer-seller basis and not for any great faith in co-operation or cooperative principles. They patronized the GLF because at the particular time it offers the best buy in quality and price.¹

The question actually asked in this study was, "Do you think of the cooperative as being your agent in the buying and selling market or just another place to do business?"

Those members who thought of the cooperative as their agent usually thought in terms of the extension of their own business enterprise. They thought of an employee or a plant hired or set up jointly by associated members to carry out a part of their individual firm's business.

Theoretically the manager hired to operate the cooperative plant may be thought of as an agent for the members and not as a manager of an economic entity or firm in itself.

¹Losey, op. cit., p. 114.

For instance the manager has been compared to a hired man who is given money to buy a bag of feed for the members. The hired man will buy the feed and will return to the member firms all monies over the cost and incidental expenses connected with the purchase. The hired hand has no financial interests in the transaction beyond his fixed wages. He is hired to carry out a segment of the member firm's activity.

It is reasonable to expect the farmer who looks at his cooperative as an agent to do certain things. If there are costs involved in the running of the plant or hiring of the manager agent the member will be expected to finance his share. Since the manager must have directions to know what to do for the best interests of the members they must determine policy and give direction.

However, if the member views the cooperative as just another place to do business he would logically assume that it is seeking to maximize its own profit, not the profit of the individual cooperating firms. Therefore, he would see no reason to finance or bear risks of the business nor would he have any right to help determine how the business should be run. He would feel no sense of obligation to patronize the business. He would seek the best market he could find and consider the cooperative as just one of several possible alternatives.

There would probably be more in the way of personal identity and concern with an agent than with just another

place to do business.

It seems reasonable to advance the proposition that those members who think of their cooperative as an agent would participate to a significantly greater extent than those who think of their cooperative as just another place to do business.

The hypothesis in the null form: There will be no significant difference in participation scores when members are compared on the basis of the way they think of their cooperative--as agents or just another place to do business.

The majority of the members thought of their cooperative as being their agent (Table 46). The mean participation

Table 46. Participation of members by definition of cooperative as an agent or another place to do business.

| Way defined | Members | | |
|------------------------------|-----------|-------------|--------------------------|
| | Number | Per cent | Mean participation score |
| Agent | 200 | 74.6 | 47.9 |
| Another place to do business | <u>68</u> | <u>25.4</u> | 36.9 |
| Total | 268 | 100.0 | |

score for this group was 47.9, while it was 36.9 for the group that thought of their cooperative as just another place to do business.

There is a significant difference in the scores (Table 47). F is 40.7 where significance at the 1 per cent level is 6.74. The null hypothesis is rejected.

Table 47. Analysis of variance cooperative participation score by definition of the cooperative as an agent or another place to do business.

| Source of variation | Degrees of freedom | Sum of squares | Mean squares |
|---------------------|--------------------|------------------|--------------|
| Between groups | 1 | 6,115.37 | 6,115.37 |
| Within groups | <u>266</u> | <u>39,965.14</u> | 150.24 |
| Total | 267 | 46,080.51 | |

Since the null hypothesis is rejected, the original contention that those members who think of their cooperative as their agent would participate to a significantly greater extent than those who think of their cooperative as just another place to do business is supported.

Member feeling of responsibility. The review of literature disclosed very little information on the relation of feeling of responsibility to participation.

The findings of Rose might be cited as possible related evidence on this point.

A belief that the important union decisions should be made by the rank and file members seems . . . to be a motivation for attending meetings and thus indirectly a cause of high solidarity.¹

It could be inferred from this statement that the belief that union decisions should be made by rank and file members might also mean that along with the belief came the feeling of

¹Rose, op. cit., p. 61-62.

responsibility because those union members who believed did participate to a greater extent in union activities.

It is possible for people to participate without any very compulsive feeling of responsibility toward the cooperative. However, it seems more logical that a feeling of responsibility on the part of the member would motivate him to play an active participation role in his organization. Responsibility could be felt on a strictly individual basis but would be given increased compulsion if it was generally recognized and the degree to which the responsibility was being lived up to could be judged by other members of the cooperative group. This of course would vary from cooperative to cooperative and community to community. However, in many places the responsibilities of the member are recognized and there is a compulsive social force exerted on the member to live up to those responsibilities.

Of course, from the economic point of view the responsibilities of patronage, risk bearing, financing and policy determination are implicit in becoming a member of the cooperative association.

It seems reasonable to expect that participation scores would differ significantly when members who feel they have a responsibility to the cooperative are compared with those who do not feel a responsibility.

Hypothesis in the null form: There is no difference in participation scores when members are compared on the basis of

feeling they have a responsibility or have no responsibility to their cooperative.

The question actually used in the schedule was unintentionally "loaded" to get a positive answer in relation to a feeling of responsibility because those who designed the schedule felt that every member would feel some sort of responsibility to the cooperative. The question read, "What are your responsibilities as a member of your cooperative?" Despite the "loading" over 30 per cent said they had no responsibility to the cooperative (Table 48). Most of those members

Table 48. Participation of members by feeling or no feeling of responsibility.

| Responsibility | Members | | |
|----------------------------------|-----------|-------------|--------------------------|
| | Number | Per cent | Mean participation score |
| Feel they have a responsibility | 184 | 68.7 | 49.1 |
| Feel they have no responsibility | <u>84</u> | <u>31.3</u> | 36.1 |
| Total | 268 | 100.0 | |

seemed to think of the cooperative as just another place to do business and therefore they could buy or sell wherever they pleased. They had no responsibility to help determine policy, finance, bear risks or be interested in the cooperative. The mean score of this group was 36.1.

Almost 70 per cent of the members did feel a responsibil-

ity. Those responsibilities were defined in many different ways and will be treated in the following section. The mean participation score of this group was 49.1.

There is a highly significant difference when scores are compared on the basis of feeling a responsibility (Table 49).

Table 49. Analysis of variance cooperative participation scores by feeling or no feeling of responsibility.

| Source of variation | Degrees of freedom | Sum of squares | Mean squares |
|---------------------|--------------------|------------------|--------------|
| Between groups | 1 | 9,786.52 | 9,786.52 |
| Within groups | <u>266</u> | <u>36,293.99</u> | 136.44 |
| Total | 267 | 46,080.51 | |

F is 71.7 where significance at the 1 per cent level is 6.74. The null hypothesis is rejected.

Since the null hypothesis is rejected, the original proposition that participation scores will differ significantly when members who feel they have a responsibility are compared with those who feel they have no responsibility is supported.

The question might logically be raised if there is any significant difference in participation scores when members are compared on the basis of what they state is their responsibility to their cooperative. There were no data presented in the studies reviewed on this subject other than those

already mentioned in relation to responsibility or no responsibility. Since there was a significant difference on the basis of feeling a responsibility or no responsibility it does not seem unreasonable to expect significant differences on the basis of how members define that responsibility.

The hypothesis stated in the null form: There is no difference in participation scores when members are compared on the basis of what they state is their responsibility to their cooperative, as categorized below.

Member statements of their responsibilities were placed in four general categories. The greatest number of members stated their responsibility was to patronize their cooperative. Patronize was used here almost entirely in the sense of doing business with their cooperative.

A second large group said their responsibility was to patronize and support their cooperative. The support mentioned here was usually stated in terms of boosting their cooperative, sticking by it in times of difficulty and financing it. Helping determine policy was not an important point here. The apparent feeling was that policy was already determined and the member was to support it.

A third category mentioned specifically that the responsibility of the member was to vote and attend meetings. This group thought of policy determination as their major responsibility.

The fourth and smallest group thought of their responsibility in a manner related to participation. They said their responsibility was not necessarily to patronize the cooperative but to give the cooperative the first chance to serve them. That is, if they had grain to sell, their responsibility was to check the price at the cooperative first and then compare with other outlets. They were perfectly free to sell wherever they wished but their responsibility was to give the cooperative the first chance.

There were eight other members who stated responsibilities in different ways but these were too few in number to be combined into categories to treat statistically.

Those who thought of their responsibility in terms of policy determination, voting and attending meetings, had the highest participation scores (Table 50). However, the differ-

Table 50. Participation of members by stated responsibility of members to cooperative.

| Member responsibility to his cooperative | Members | | Mean partici- pation score |
|---|-----------|------------|-------------------------------|
| | Number | Per cent | |
| To patronize | 85 | 48.3 | 48.0 |
| Patronize and support | 61 | 34.6 | 48.8 |
| Vote and attend meetings | 20 | 11.4 | 53.0 |
| Give cooperative first chance | <u>10</u> | <u>5.7</u> | 50.8 |
| Total | 176 | 100.0 | |

ence in participation scores was not significant.

There was no significant difference in participation scores (Table 51). F was less than one. There is not sufficient evidence to reject the null hypothesis.

Since the null hypothesis was not rejected, the original contention that there would be a significant difference in participation scores when members were compared on the basis of what they state is their responsibility to their cooperative is not supported.

Table 51. Analysis of variance cooperative participation score by stated responsibility of members to cooperative.

| Source of variation | Degrees of freedom | Sum of squares | Mean squares |
|---------------------|--------------------|------------------|--------------|
| Between groups | 3 | 433.09 | 144.36 |
| Within groups | <u>172</u> | <u>24,933.90</u> | 144.96 |
| Total | 175 | 25,366.99 | |

Member opinion regarding 100 per cent patronage. A separate question in the schedule was directed at a specific responsibility. The question was asked, "Is a member ever justified in not patronizing his local cooperative?" The use of the word ever is very confining to the member and the answers to this question may give some indication of the acceptance of members of this type of confining responsibility.

This question also deals with one of the dimensions of

the participation score, patronage. It would seem logical for the member who says that he is never justified in not patronizing his local cooperative to patronize his cooperative to a greater degree than those who say they are justified in not patronizing the cooperative. If the elements of the participation score are related that member could also be expected to have a higher participation score.

The proposition that participation scores will be significantly different when compared on the basis of whether or not a member feels he is ever justified in not patronizing his local cooperative seems reasonable. In addition it would seem reasonable to expect the person who sees no justification for not patronizing the cooperative to have a significantly higher participation score.

Hypothesis in the null form: There is no difference in member participation scores when they are compared on the basis of whether or not the member feels he is ever justified in not patronizing his local cooperative.

The majority of members stated that a member is justified in not patronizing his local cooperative (Table 52).

There is a highly significant difference in scores (Table 53). F is 9.06 where F at the 1 per cent level is 6.74. The null hypothesis is rejected.

Since the null hypothesis is suggested, the proposition that participation scores will be significantly different when compared on the basis of whether or not members feel justified

Table 52. Participation of members by being justified or not justified in not patronizing cooperative.

| Justification | Members | | Mean participation score |
|--|------------|-------------|--------------------------|
| | Number | Per cent | |
| Justified in not patronizing cooperative | 151 | 56.3 | 43.0 |
| Should always patronize cooperative | <u>117</u> | <u>43.7</u> | 47.8 |
| Total | 268 | 100.0 | |

Table 53. Analysis of variance cooperative participation score by being justified or not justified in not patronizing the cooperative.

| Source of variation | Degrees of freedom | Sum of squares | Mean squares |
|---------------------|--------------------|------------------|--------------|
| Between groups | 1 | 1,517.35 | 1,517.35 |
| Within groups | <u>266</u> | <u>44,563.16</u> | 167.53 |
| Total | 267 | 46,080.51 | |

in not patronizing their local cooperative is supported.

Justification for not always patronizing the local cooperative. Since over 55 per cent of the members felt that they were justified in not patronizing their local cooperative and since patronage is an element of participation, an additional analysis was made. What were the justifications for not patronizing the cooperative and are they significantly related to participation scores?

As the author took schedules he noted the great number of members who gave better price elsewhere as their justification for not patronizing the local cooperative. This answer did not correspond to the theoretical responsibility that goes with becoming a member of a cooperative. It was quite possible that the members who gave this justification were those who had low participation scores. Do the members have other justifications that they feel are acceptable?

A tentative proposition was formulated that participation scores of those who feel they are justified in not patronizing their cooperative will be significantly different when compared on the basis of their justification for not patronizing.

Hypothesis in the null form: There is no difference in member participation scores, of those who feel justified in not patronizing their cooperative, when they are compared on the basis of their justification for not patronizing.

The justifications for not patronizing were classified in the following manner.

The greatest number gave better prices elsewhere for their justification for not patronizing the local cooperative.

The next largest group said if the management was poor in the cooperative they were justified in not patronizing the cooperative. A few members stated this justification in terms of not getting a "square deal" from the management.

Poor quality, nine members, and poor service, six members,

were combined in a group large enough to treat statistically and made up the third group.

Other justifications given were convenience, nine members, personal relations with competitors, four members, to aid competition, two members, and four members mentioned different individual justifications.

Though there was no significant difference in the scores those who said better prices were their justification had the lowest participation scores, while those who gave justification in terms of poor quality or service had the highest participation score (Table 54).

Table 54. Participation of members by justification for not patronizing cooperative.

| Justification | Members | | Mean participation score |
|--|-----------|-------------|--------------------------|
| | Number | Per cent | |
| Better prices | 92 | 69.2 | 43.0 |
| Poor management | 26 | 19.5 | 44.00 |
| Poor quality of goods and poor service | <u>15</u> | <u>11.3</u> | 45.9 |
| Total | 133 | 100.0 | |

There is no significant difference in scores (Table 55). F is less than one. There is not sufficient evidence to reject the null hypothesis.

Since the null hypothesis is not rejected, the original

Table 55. Analysis of variance cooperative participation scores by justification for not patronizing cooperative.

| Source of variation | Degrees of freedom | Sum of squares | Mean squares |
|---------------------|--------------------|------------------|--------------|
| Between groups | 2 | 120.54 | 60.17 |
| Within groups | <u>130</u> | <u>23,532.89</u> | 181.02 |
| Total | 132 | 23,653.23 | |

proposition that there will be a significant difference in participation scores when compared on the basis of different justifications for not patronizing is not supported.

Member feeling of say or no say in running the cooperative. It might be hypothesized that those members who feel that they have a real say in the running of the cooperative would participate to a higher degree than those who felt they had no say in running the cooperative. A person who understands the accepted principles of democratic control and believes in exercising that privilege would probably go to meetings more frequently, speak up in meetings more often, talk to the manager and board about the cooperative and boost the cooperative more. That member would probably also be more willing to finance his cooperative because he would feel that he had something to say about how those finances were going to be used. While the person that felt that he had no say would probably participate less in the above activities.

Rose found that the belief that important union decisions should be made by the rank and file members seems to be motivation for attendance at meetings.¹ Stern found that 78 per cent of the group that had the opportunity and attended meetings reported that farmers always have a say as to how the cooperative is run.² This was much higher than for the members who did not attend meetings. Though these data are not completely comparable to the data of this study, they do give indication that having a say in the cooperative might be an important factor related to participation.

It would seem reasonable to hypothesize that participation scores would differ significantly when compared on the basis of the member's feeling he had a say or no say in running the cooperative.

Hypothesis in the null form: There is no difference in participation scores when members are compared on the basis of feeling they have a say or no say in the running of the cooperative.

The majority of the members thought that they had a say in the running of their cooperative (Table 56). When asked why they thought they had a say they gave answers in terms of their attending meetings and being able to vote, talking to

¹Rose, op. cit., p. 61-62.

²Stern and Doran, op. cit., p. 18.

Table 56. Participation of members by feeling of say or no say in running the cooperative.

| Say or no say | Members | | Mean partici- pation score |
|------------------|------------|-------------|-------------------------------|
| | Number | Per cent | |
| Have no say | 103 | 38.6 | 37.0 |
| Have a say | <u>164</u> | <u>61.4</u> | 50.3 |
| Total | 267 | 100.0 | |

their board and manager and being just as important as anyone else in the organization. Those who felt they had no say stated they felt this way because the board or a small group of farmers ran the cooperative, and the manager ran the cooperative. Almost a third of the group that stated they had no say stated they not only did not have a say but did not want any say. Mean participation score for those who felt they had no say was 37.0, and it was 50.3 for those that felt they had a say.

There is a highly significant difference when participation scores are compared on the basis of whether or not members feel they have a say (Table 57). F is 85.2 where significance at the 1 per cent level is 6.74. The null hypothesis is rejected.

Since the null hypothesis is rejected, the original proposition that participation scores would differ significantly when compared on the basis of the member feeling he had a

Table 57. Analysis of variance cooperative participation scores by feeling of say or no say in management of cooperative.

| Source of variation | Degrees of freedom | Sum of squares | Mean squares |
|---------------------|--------------------|------------------|--------------|
| Between groups | 1 | 11,149.95 | 11,149.95 |
| Within groups | <u>265</u> | <u>34,671.20</u> | 130.83 |
| Total | 266 | 45,821.15 | |

say or no say in running the cooperative is supported.

Identity with cooperative

Member "we feeling" or identity with the cooperative.

Much has been written about "we feeling" as it relates to identity and participation in group activity.¹ "We feeling" is often expressed as "we believe," "we feel," "we stand for," "we do" and "we want."

The use of the term 'we' implies a certain unity of thought and purpose and a certain co-operative spirit. . . . There is usually displayed a willingness to endure sacrifice and hardship for the benefit of the group and for the assistance and defense of its constituent members. . . .

¹For example see Plato. The republic of Plato. (Translated by Benjamin Jewitt) N. Y., The Colonial Press. 1901. p. 153; Edward T. Gregory, Jr., and Lee Bidgood. Introductory sociology. N. Y., Prentice Hall. 1939. p. 30; Joseph B. Gittler. Leading forms of social groups. Ames, Iowa, Iowa State College Library. No date. (Typed copy); William Graham Sumner. Folkways. Boston, Ginn and Company. 1940. p. 12-13; Emory S. Bogardus. Sociology. N. Y., Macmillan Co. 1941. p. 416; Charles Horton Cooley, Robert Cooley Angell and Juillard Lowell Carr. Introductory sociology. N. Y., Charles

Relations. . .are based on a common sympathy with each other and a definite consciousness of being united in some way.¹

The research seems to indicate that "we feeling" and participation are closely related. The member who identifies himself with his group feels a stake in that group and is willing to help and even sacrifice for that group would probably participate in its activities. Lewin stated that it is a mistake to assume that the way to keep a large membership is to demand as little as possible from the individual. "Strong groups are not built up that way, but rather the opposite policy."² Rose concluded that making contributions to or sacrifices for an organization tends to increase loyalty to that group.³

Esprit de corps, loyalty, solidarity and group identity, though probably no identical with "we feeling" are sometimes used to describe this general type of social phenomena. Past thought and research have dealt with these concepts as they applied to different groups.⁴ The recent work of Rose may be

Scribner's Sons. 1933. p. 199; and Robert L. Sutherland and Julian L. Woodward. Introductory sociology. N. Y., J. B. Lippincott Co. 1937. p. 283-284.

¹Gregory and Bidgood, op. cit., p. 30.

²Kurt Lewin. Resolving social conflicts. N. Y., Harper and Bros. 1945. p. 199.

³Rose, op. cit., p. 192.

⁴For example see Emile Durkheim. Division of labor in society. Glencoe, Ill., Free Press. 1947; F. J. Roethlisberger and W. J. Dickson. Management and the worker. Cambridge, Harvard University Press. 1939; Samuel A. Stouffer

used as an example. Though Rose never really came to grips with just what he meant by solidarity or loyalty, he did have some data that are important to the consideration of "we feeling." He concluded that, "It seems clear that getting members out to meetings has aided the union in getting member loyalty."¹ He also concluded that the strong loyalty in the union is closely associated with two variables: (1) the success that the union has in achieving its goals of increasing worker income, and (2) the amount of participation in union activities in which the rank and file member engages.²

It would seem reasonable to expect that participation scores would differ significantly when compared on the basis of "we feeling" for the cooperative.

Hypothesis in the null form: There is no difference in member participation scores when compared on the basis of the member definitely having "we feeling" or having little or no "we feeling" for the cooperative.

One of the major problems of past research in dealing with "we feeling" is the difficulty of measurement. This was also a difficulty in this study. The following method was used. Though there was no actual question on the schedule dealing with "we feeling," there were many questions in the

and others. The American soldier. Princeton, Princeton University Press. 1949; Arnold M. Rose. The negro morale: group identification and protest. Minneapolis, University Minnesota Press. 1949; and Rose, Union Solidarity.

¹Rose, Union solidarity, p. 53.

²Ibid., p. 183.

schedule that gave opportunity for the member to express himself in terms of "we," "our" and "us" as compared with "they," "them," "he," "those fellows" and "those guys" when speaking about the local cooperative, its personnel and activities. In many cases in addition to actual words used the interviewer could catch voice inflection and gestures that gave indication of identity for or feeling against the cooperative. Two questions in particular often brought forth expressions, in words, voice, and gestures that gave clues to "we feeling": (1) "Do you believe you have a say ____, have no say ____, in running the cooperative? Why?" and (2) "Do you think of the cooperative as being your agent in the buying and selling markets or just another place to do business?"

The interview took from 50 to 90 minutes to complete. Usually by this time good rapport was established and the interviewee would mention things about his cooperative that would give additional data that would help in classification. Such things were mentioned as description of cooperative problems that members had solved together and the pride and identity that came from this joint action, the in-group out-group description when speaking of members and nonmembers, or cooperative members and those who opposed the cooperative or how "we" got gas when it was in short supply and those "other guys" had trouble and "we" have something to say about the

policy in "our" cooperative but those other businesses are run from New York.

It is recognized that "we feeling" is felt in varying degrees from no "we feeling" to a very intense "we feeling." It is very difficult to tell just where to draw the line and say this person has enough "we feeling" to be categorized as having "we feeling" and this person has not. The subjectivity of the decision is recognized. The judgment was made after each interview and members were classified as definitely having "we feeling" or having little or no "we feeling" for the cooperative.

As indicated before, two people took almost all of the schedules in this study. They often talked over specific interviews and in almost all cases agreed on the classification. In some cases both schedule takers were present at the same interview and in all cases they agreed on the classification. In cases where the decision was difficult, leading questions were asked at the end of the interview, such as, "Do you really feel that this is your cooperative and you are a part of it?" This again gave opportunity to judge not only¹ the answer but inflection and gestures.

¹It is important to note that the interviewers not only classified the members on the basis of "we feeling" for the cooperative but also on the basis of the "we feeling" the member had for his local community. In many cases the members were classified as having "we feeling" for only one, the community or cooperative. This might be interpreted that the interviewers were not just judging the general impression left by the interviewee or the general atmosphere of the interview

Almost a third¹ of the members were classified as having little or no "we feeling" for the cooperative of which they were a member (Table 58). Mean participation scores for this group were 37.0 while those having a definite "we feeling" had a participation score of 49.5.

Table 58. Participation of members by "we feeling" or no "we feeling" for the cooperative.

| "We feeling" | Members | | Mean participation score |
|--------------------------------|-----------|-------------|--------------------------|
| | Number | Per cent | |
| Definitely have "we feeling" | 173 | 64.6 | 49.5 |
| Have little or no "we feeling" | <u>95</u> | <u>35.4</u> | 37.0 |
| Total | 268 | 100.0 | |

There is a highly significant difference when participation scores are compared on the basis of "we feeling" (Table 59). F is 69.27 where significance at the 1 per cent level is 6.74. The null hypothesis is rejected.

Since the null hypothesis is rejected, the original proposition that participation scores would differ significantly when compared on the basis of "we feeling" is supported.

situation but were discriminating between "we feeling" for the two different groups.

¹Stern found that slightly less than one-eighth of the members spoke of their cooperative as though they were a part of it. Stern, Membership problems in a milk marketing organization, p. 13.

Table 59. Analysis of variance cooperative participation scores by "we feeling" or no "we feeling" for cooperative.

| Source of variation | Degrees of freedom | Sum of squares | Mean squares |
|---------------------|--------------------|------------------|--------------|
| Between groups | 1 | 9,520.36 | 9,520.36 |
| Within groups | <u>266</u> | <u>36,560.15</u> | 137.44 |
| Total | 267 | 46,080.51 | |

Number of neighbors who belong to the cooperative. It has been established that any activity in which people engage publicly over time must have the acceptance of the general value system or at least the special segment of society within which the group acts. In general, participation in farmer cooperatives has that acceptance. However, an important factor related to participation might be the degree to which participation in cooperative activity is a common practice or accepted value of all as compared with just a few of the locality group in which the member resides.

It might be posited that in those areas where nearly everyone participates in cooperative activity that patterns of expectations are set up that exert pressure on people to participate in cooperative activity. On the other hand, where there is only one or a few neighbors who participate it might be difficult to establish forceful patterns of expectations. Thus one might expect that people who live in areas where many

or all of their neighbors are cooperative members would know of the general acceptance of cooperation as a way of business and feel the pervasive pressure for participation. On the other hand, in those areas where there is only one or a very few members there might not be the general acceptance and social pressures.

There are at least three main elements left out of the above contention and also out of the present study. There is no way of knowing how pervasive the value acceptance of co-operatives is in a given area. There is no way of knowing at what level participation expectations are placed. There is no way of knowing the degree to which the values, once set, are enforced.

On the other hand, it might be reasoned that when members continue to belong to an organization even though they are in a minority they must do so out of very strong convictions about that organization and these convictions might well lead to active participation. There is great opportunity for intra-community conflict between different value groups which might lead to a strong unity and high degree of participation within each group.

From an economic point of view it might be deduced that if most people join the cooperative there must be a generally felt need for the cooperative. However, this may not necessarily be true because there may be only a few members who

realize the need and the remainder merely patronize the cooperative because it is the most convenient source or outlet. It is also quite possible that even though there are only a few scattered members of the cooperative these members may participate to a high degree because of both the social reasons mentioned above and economic reasons in terms of the recognition of a specialized need in their particular farming operation. For instance, scattered dairy producers might form an artificial insemination cooperative and participate in it very actively.

The proposition is suggested that participation scores of members will differ significantly when compared on the basis of the stated numbers of neighbors who belong to cooperatives. Those who say a high proportion of their neighbors belonging will have the higher scores. Hypothesis in the null form: There is no difference in member participation scores when compared on the basis of stated number of neighbors who belong to cooperatives as categorized below.

The majority of the members stated that none or only some of their neighbors belonged to cooperatives (Table 60). In almost all cases the answer in the above category was some. Almost 44 per cent stated that many or all of their neighbors belonged.

The participation scores were significantly different. Those who participated the most said that many or all of their

neighbors were members. Those who said only some or none of their neighbors were members had much lower scores.

There is a highly significant difference between scores (Table 61). F is 13.15 where significance at the 1 per cent level is 6.74. The null hypothesis is rejected.

Table 60. Participation of members by stated number of neighbors who belonged to cooperative.

| Number of neighbors who belonged to cooperative | Members | | |
|---|------------------|-------------|--------------------------|
| | Number | Per cent | Mean participation score |
| None or some | 146 | 56.2 | 42.6 |
| Many or all | <u>114</u> | <u>43.8</u> | 48.5 |
| Total | 260 ^a | 100.0 | |

^aEight gave other answers.

Table 61. Analysis of variance cooperative participation score by stated number of neighbors who belonged to cooperative.

| Source of variation | Degrees of freedom | Sum of squares | Mean squares |
|---------------------|--------------------|------------------|--------------|
| Between groups | 1 | 2,193.95 | 2,193.95 |
| Within groups | <u>258</u> | <u>43,040.25</u> | 166.82 |
| Total | 259 | 45,234.20 | |

Since the null hypothesis is rejected, the original proposition that social participation scores would differ significantly when compared on the basis of stated number of neighbors belonging to cooperatives is supported.

Two main situations have been treated thus far. The one in which most or all of the member's neighbors are members, and the one where none or only some are members. A third category may be added although there are only eight cases in it. This group represents the group that did not know the membership status of their neighbors. This classification was used very sparingly and represents those who are more or less social isolates and probably were not aware of neighbor action and not sensitive to outside pressures and expectations.

There is a highly significant difference between scores (Table 63). F is 7.09 where significance at the 1 per cent level is 4.69. The null hypothesis is rejected.

Since the null hypothesis is rejected, the original proposition that participation scores would differ significantly when compared on the basis of the stated number of neighbors belonging to cooperatives is again supported. Those who stated that most of their neighbors belong had the highest score.

Source and desire for cooperative information

Receiving or not receiving current information about the cooperative. Most local and wholesale cooperatives are making

Table 62. Participation of members by stated number, including "Don't know" category, of neighbors who belonged to cooperative.

| Number of neighbors who belonged to cooperative | Members | | Mean partici- pation score |
|---|----------|------------|-------------------------------|
| | Number | Per cent | |
| None or some | 146 | 54.5 | 42.6 |
| Many or all | 114 | 42.5 | 48.5 |
| Don't know | <u>8</u> | <u>3.0</u> | 40.9 |
| Total | 268 | 100.0 | |

Table 63. Analysis of variance cooperative participation score by stated number, including "Don't know" category, who belonged to cooperative.

| Source of variation | Degrees of freedom | Sum of squares | Mean squares |
|------------------------|-----------------------|-------------------|-----------------|
| Between groups | 2 | 2,339.38 | 1,169.69 |
| Within groups | <u>265</u> | <u>43,741.13</u> | 165.06 |
| Total | 267 | 46,080.51 | |

an attempt to keep their membership informed about their cooperatives and cooperatives in general. The assumption behind this attempt is that information will bring about understanding and thus enlightened participation.

Members were asked, "Where do you get your current information about cooperatives?" Over 20 per cent said they did not get any current information about their cooperatives.

No attempt was made in this question to get at what type

of information members were getting. The recognition that they were or were not getting information was the focus. What the members considered as their source of current information is taken up in the following section.

If information leads to understanding and thus enlightened participation, it would seem logical to expect participation scores to differ significantly when those who say they do get current information are compared with those who say they do not get current information. Hypothesis in the null form: There is no difference in member participation scores when members are compared on the basis of getting current information or not getting current information about cooperatives.

Those who said they received current information had a higher participation score, 46.5, than those who said they did not get current information, participation score 39.5 (Table 64).

There is a highly significant difference in participation scores (Table 65). F is 12.89 where significance at the 1 per cent level is 6.74. The null hypothesis is rejected.

Since the null hypothesis is rejected, the original proposition that participation scores would be significantly different when members were compared on the basis of saying they get or do not get current information about their cooperative is supported.

Table 64. Participation of members by whether or not members get current information about the cooperative.

| Current information | Members | | Mean participation score |
|--------------------------------|-----------|-------------|--------------------------|
| | Number | Per cent | |
| Do get current information | 213 | 79.5 | 46.51 |
| Do not get current information | <u>55</u> | <u>20.5</u> | 39.5 |
| Total | 268 | 100.0 | |

Table 65. Analysis of variance cooperative participation score by whether or not members get current information about the cooperative.

| Source of variation | Degree of freedom | Sum of squares | Mean squares |
|---------------------|-------------------|------------------|--------------|
| Between groups | 1 | 2,129.56 | 2,129.56 |
| Within groups | <u>266</u> | <u>43,950.95</u> | 165.22 |
| Total | 267 | 46,080.51 | |

Source of current information. As indicated above, almost 80 per cent of the members said they had some source of current information. Many different sources and many different combinations of sources were mentioned.

Stern found that those members who reported meetings as the best source of information about cooperatives were the best informed members.¹ He also found that those who reported

¹ Stern and Doran, op. cit., p. 18.

they read the house organ thoroughly compared with those who read it partially or not at all attended meetings much more regularly.¹ John found that farmers who reported meetings of the local and the house organ as most reliable sources of information were most likely to be well informed.² Losey found that there was no significant difference in meeting attendance by source of information mentioned but that there was a difference in regular patronage by source of information.³

It seems reasonable to expect that the sources or combination of sources might not be equally successful in getting across information and bringing about understanding and thus one might expect different degrees of participation depending on the source or combination of sources of current information. The basic question might be raised, how many, if any, of the sources mentioned actually attempt to get across basic cooperative theory or the principles of cooperatives. Some of the sources mentioned were almost completely sales promotional in nature. Other sources dealt mainly with success story information with little attempt being made to present important facts that would lead to understanding.

However, it is felt that some of the current sources of information contain much more basic information than others. Thus the proposition is suggested that member participation

¹Stern, Membership problems in a milk marketing organization, p. 7.

²John, op. cit., p. 12.

³Losey, op. cit., p. 246.

scores will differ significantly when compared on the basis of the source or combination of sources of the information mentioned.

Hypothesis in the null form: There is no difference in participation scores when members are compared on the basis of what they said was their source of current information about cooperatives as categorized below.

The complete list of stated sources of current information is given so that the variety of current sources may be noted and possible insights for future research be gained¹ (Table 66).

Those current sources of information that were mentioned by eight or more members were treated statistically. Scores ranged from a low of 40.0 for those mentioning neighbors, relatives and friends to 55.9 for those who mentioned wholesale cooperative literature in combination with neighbors, relatives and friends (Table 67). Those who gave the following as current sources of information also ranked high: local cooperative literature, the Coop Consumer, Farm Bureau and annual meetings, farm papers and magazines, and wholesale cooperative literature other than the Coop Consumer also had relatively high scores. However, there were no significant differences in the scores.

¹Though the small numbers in the categories do not make the data reliable it may be noted that even with the wide range in sources the score differences are not significant.

Table 66. Participation of members by stated current source of information.

| Source of information | Member | | |
|--|------------|--------------|--------------------------|
| | Number | Per cent | Mean participation score |
| No source | 55 | 20.5 | 39.5 |
| Farm papers and magazines | 49 | 18.3 | 48.4 |
| Wholesale literature (not Coop Consumer) | 22 | 8.2 | 48.1 |
| Coop Consumer, CCA | 18 | 6.7 | 45.8 |
| Cooperative Consumer, Farm Bureau and annual meeting | 16 | 6.0 | 49.8 |
| Newspapers | 16 | 6.0 | 43.1 |
| Farm papers and magazines and local cooperative literature | 12 | 4.5 | 43.3 |
| Coop Consumer and local literature | 11 | 4.1 | 43.8 |
| Local cooperative literature | 11 | 4.1 | 50.1 |
| Neighbors, relatives and friends | 11 | 4.1 | 40.0 |
| Cooperative personnel and board | 8 | 3.0 | 39.8 |
| Wholesale cooperative literature (not Coop Consumer), neighbors and friends | 8 | 3.0 | 55.9 |
| Coop annual meetings, and farm papers and magazines | 6 | 2.2 | 52.3 |
| Cooperative meetings, farm papers and Farm Bureau | 5 | 1.9 | 40.4 |
| Annual meetings | 4 | 1.5 | 52.3 |
| Coop Consumer and Felco publication | 4 | 1.5 | 39.8 |
| Cooperative personnel, watching cooperative work and farm papers and magazines | 2 | .7 | 43.5 |
| Farm organizations and Extension Service | 2 | .7 | 44.0 |
| Felco publication and Farm Bureau | 2 | .8 | 50.5 |
| Radio | 2 | .7 | 38.0 |
| Wholesale literature and local cooperative literature | 2 | .7 | 41.0 |
| Cooperative magazines | 1 | .4 | 33.0 |
| Friends, relatives and neighbors and coop meetings | 1 | .4 | 59.0 |
| Total | 268 | 100.0 | |

Table 67. Participation of members by sources of current information mentioned by eight or more members.

| Source of information | Members | | |
|---|---------|----------|--------------------------|
| | Number | Per cent | Mean participation score |
| Farm papers and magazines | 49 | 26.92 | 48.4 |
| Wholesale literature (not Coop Consumer) | 22 | 12.09 | 48.1 |
| Coop Consumer, CCA | 18 | 9.89 | 45.8 |
| Coop Consumer, Farm Bureau and annual meeting | 16 | 8.79 | 49.8 |
| Newspapers | 16 | 8.79 | 43.1 |
| Coop Consumer and local cooperative literature | 11 | 6.05 | 43.8 |
| Wholesale and local literature and farm papers and magazines | 12 | 6.59 | 43.3 |
| Local cooperative literature | 11 | 6.04 | 50.1 |
| Neighbors, relatives and friends | 11 | 6.04 | 40.0 |
| Cooperative personnel, including manager and board, and watching cooperative work | 8 | 4.40 | 39.8 |
| Wholesale coop literature, neighbors and friends | 8 | 4.40 | 55.9 |
| Total | 182 | 100.00 | |

There is not a significant difference in scores (Table 68). F is 1.35 where significance at the 5 per cent level is 1.88. There is not sufficient evidence to refute the null hypothesis.

Table 68. Analysis of variance cooperative participation score by current sources of cooperative information mentioned by eight or more members.

| Source of variation | Degrees of freedom | Sum of squares | Mean squares |
|---------------------|--------------------|------------------|--------------|
| Between groups | 10 | 2,464.89 | 246.49 |
| Within groups | <u>171</u> | <u>31,322.63</u> | 183.17 |
| Total | 181 | 33,787.52 | |

Since the null hypothesis is not rejected, the original proposition that member participation scores would be significantly different when members are compared on the basis of their stated current source of information is not supported.

Since sources and combination of sources mentioned varied so greatly additional combinations were made so that a larger proportion of the sample could be treated statistically (Table 69). Though an attempt was made to make these combinations in the most logical manner the shortcomings of such combinations are recognized and generalizations should be treated accordingly.

The participation scores are not significantly different (Table 70). F is 1.16 where significance at the 5 per cent level is 1.87. There is not sufficient evidence to refute the null hypothesis.

Since the null hypothesis is not rejected, the original proposition that participation scores would differ signifi-

Table 69. Participation of members by forced categories of source of information mentioned by eight or more members.

| Source of information | Members | | Mean participation score |
|---|----------|------------|--------------------------|
| | Number | Per cent | |
| Mainly farm papers and farm magazines (2, 17, 7) ^a | 63 | 29.6 | 47.3 |
| Mainly wholesale literature (not Coop Consumer) (3, 22, 12, 21) | 33 | 15.5 | 49.1 |
| Mainly Coop Consumer (4, 16) | 22 | 10.3 | 44.7 |
| Newspaper and radio (6, 20) | 18 | 8.4 | 42.5 |
| Annual meeting, Coop Consumer and Farm Bureau | 16 | 7.5 | 49.8 |
| Mainly neighbors, relatives and friends (6, 23) | 12 | 5.6 | 41.6 |
| Local cooperative literature | 11 | 5.2 | 50.1 |
| Coop Consumer and local literature | 11 | 5.2 | 43.8 |
| Mainly annual meetings (15, 13) | 10 | 4.7 | 52.3 |
| Farm organizations and Extension (18, 14, 19) | 9 | 4.2 | 43.4 |
| Cooperative personnel, including manager and board, and watching cooperative work | <u>8</u> | <u>3.8</u> | 39.8 |
| Total | 213 | 100.0 | |

^aNumbers refer to combinations of categories listed in Table 66.

Table 70. Analysis of variance cooperative participation scores by forced categories of sources of information mentioned by eight or more members.

| Source of variation | Degrees of freedom | Sum of squares | Mean squares |
|---------------------|--------------------|------------------|--------------|
| Between groups | 10 | 2,088.22 | 208.82 |
| Within groups | <u>202</u> | <u>36,395.02</u> | 180.17 |
| Total | 212 | 38,483.24 | |

cantly when compared on the basis of source of current information is not supported in this case either.

In almost all cases these categories are mutually exclusive. For instance, the person who mentioned the combined category of the Coop Consumer and Local Literature as his current source of information does not also appear in the separate categories of Coop Consumer and local cooperative literature.

The participation scores ranged from 39.8 for Cooperative Personnel Including Manager and the Board to 52.3 for Mainly Cooperative Annual Meetings. A combination involving annual meeting along with the Coop Consumer and the Farm Bureau as sources also ranked high.

Again it should be emphasized that any generalizations made from these data should be qualified on the basis of combination of categories. Additional research needs to be done in this area. For instance, why does the combination of Coop Consumer and local literature rank lower than each of these categories separately? Do farm papers and magazines

carry enough information about cooperatives to be considered such an important source of information? Or, are the people who read this type of publications the same persons who would understand and be active in his cooperatives?

More information desired about the local cooperative.

Anderson states, "One of the problems in the education of farmers with respect to his own marketing agency is to create a desire for the information which he realizes he does not have."¹ It might also be pointed out that even a prior step is making the member aware that he does not have all the information he needs to make rational decisions in relation to the cooperative.

The question was asked, "Would you like to receive more information about your cooperative?" Over 56 per cent said they did desire more information. The Anderson study found that only 23 per cent said they could use more information. Sixty-eight per cent said they were satisfied with the information they possessed and nine per cent said they did not receive any information at all.²

Is it reasonable to expect those who desire more information to have higher participation scores than those who do not desire more information? As stated above the first step in most educational programs would be to create the feeling

¹Anderson and Sanderson, op. cit., p. 17.

²Ibid., p. 18.

on the part of the members that they did not have all the facts and understandings needed to make rational decisions related to their cooperative.

Field observation leads one to conclude that those who do not want more information fall into three main categories. First, there are those who do not know much about their cooperative and do not want to know more. They participate to a minimum degree and they do not want to be more active. As long as they experience some satisfaction regarding prices, services and patronage refunds they have no further concern about their cooperative. This view is supported by the fact that a large number of members said they did not have a say in the running of their cooperative and did not want any.

The second category varies slightly from the first. They know a little about their cooperative. The more they learn the more they feel obligations to their cooperative, and the more they feel pressure to participate in various ways. To escape these pressures they want to be able to plead ignorance, so do not want more information.

A third category think they now get a lot of information and they do not have or take time to read and understand what they do get. They want no more. This group also is usually not well informed or active in the cooperative.

Those who want more information seem to have some understanding of their cooperatives, feel some sense of responsibility to participate in cooperative activities and are willing

to learn more about their cooperatives.

If these observations are true then one might expect participation scores to differ significantly when members are compared on the basis of wanting more information or wanting no information about their local cooperatives. Those who want more information will have the higher scores.

Hypothesis in the null form: There is no difference in participation scores when members are compared on the basis of wanting or not wanting more information about their local cooperatives.

There is a highly significant difference in scores (Table 72). F is 20.74 where significance at the 1 per cent level is 6.74. The null hypothesis is rejected.

Since the null hypothesis is rejected, the original proposition that participation scores would differ significantly when members are compared on the basis of wanting more or not wanting more information about their cooperative is supported. The direction of difference is as expected--those who want more information have the higher score.

More information desired about cooperatives in general.

Members were also asked if they wished more information about cooperatives in general, mainly, wholesale, regional, and foreign cooperatives. An even larger number, 69 per cent, wanted more information about cooperatives in general.

In addition to the observations made in the previous

Table 71. Participation of members by whether or not more information about local cooperative is desired.

| Information | Member | | |
|--|------------|-------------|--------------------------|
| | Number | Per cent | Mean participation score |
| Would like to receive more information | 151 | 56.3 | 48.2 |
| Would not like to receive more information | <u>117</u> | <u>43.7</u> | 41.1 |
| Total | 268 | 100.0 | |

Table 72. Analysis of variance cooperative participation scores by whether or not more information about local cooperative is desired.

| Source of variation | Degrees of freedom | Sum of squares | Mean squares |
|---------------------|--------------------|------------------|--------------|
| Between groups | 1 | 3,332.89 | 3,332.89 |
| Within groups | <u>266</u> | <u>42,747.62</u> | 160.71 |
| Total | 267 | 46,080.51 | |

section there may be additional reasons that the person who wanted to know more about cooperatives in general might participate to a greater extent in his cooperative. It might be reasoned that an appreciation of the possibilities of cooperatives and the desire for additional information regarding cooperatives in general might come out of a satisfying experience with the local cooperative. Ideally that satisfying experience would involve maximum participation in the local

cooperative.

Therefore, one might expect the participation scores to differ significantly when members are compared on the basis of whether or not they want more information about cooperatives in general. One would expect those who want the additional information to have the highest participation scores.

Hypothesis in the null form: There is no difference in participation scores when members are compared on the basis of wanting more or wanting no more information about cooperatives in general.

There was an even greater difference in mean participation scores in the case of wanting more information about wholesale cooperatives and cooperatives in general (Table 73).

There is a highly significant difference between scores (Table 74). F is 32.92 where significance at the 1 per cent level is 6.74. The null hypothesis is rejected.

Since the null hypothesis is rejected, the original proposition that participation scores would differ significantly when members are compared on the basis of wanting more information or not wanting more information about wholesale cooperatives in general is supported. The direction of the difference is as expected in that those who wanted more information had higher scores.

Knowledge of facts about cooperatives

Knowledge of facts about the cooperative. Many studies

Table 73. Participation of members by whether or not more information about cooperatives in general is desired.

| Information | Member | | Mean participation score |
|--|-----------|-------------|--------------------------|
| | Number | Per cent | |
| Would like to receive more information | 185 | 69.0 | 48.0 |
| Would not like to receive more information | <u>83</u> | <u>31.0</u> | 38.6 |
| Total | 268 | 100.0 | |

Table 74. Analysis of variance cooperative participation score by whether or not more information about cooperatives in general is desired.

| Source of variation | Degrees of freedom | Sum of squares | Mean squares |
|---------------------|--------------------|------------------|--------------|
| Between groups | 1 | 5,074.29 | 5,074.29 |
| Within groups | <u>266</u> | <u>41,006.22</u> | 154.16 |
| Total | 267 | 46,080.51 | |

have dealt with the relation of knowledge of facts and participation.

Stern's measurements were in terms of the member's knowledge of the volume of business, size of membership, when the cooperative was organized, date of organization, who were the present president and manager, who owns the facilities, why was the cooperative started, how does one become a member, what is evidence of membership and where are the headquarters of

the organization. He found a positive relation between the knowledge score on the one hand and number of meetings attended and amount of patronage done with the cooperative¹ on the other hand.

John found that members who attended one or more meetings of their local were more likely to be informed than non-²attenders. Gibson found that attendance at meetings was positively related to knowledge of the structure and activ-³ities of the cooperatives. Anderson and Sanderson concluded that the patron member, the regular patron and the farmer who attended meetings had more accurate knowledge about how membership was obtained, member rights and how local profits were used. "Participation and knowledge are shown to be related in⁴ almost every situation."

McKay found that the greater the number of members participating directly in the activities of the cooperative, as directors or members of committees, the greater these members'⁵ knowledge would be.

Losey dealt with understanding of facts in terms of understanding how local profits were used, attainment of

¹Stern and Doran, op. cit., p. 17.

²John, op. cit., p. 13.

³Gibson, op. cit., p. 465.

⁴Anderson and Sanderson, op. cit., p. 30.

⁵McKay, op. cit., p. 6.

membership, duties and powers of advisory committees, rights of patrons, selection of manager and election of board of directors. He found a high relationship between understanding of facts and meeting attendance and a significant relationship¹ between regular patronage and understanding of facts.

Thus it seems that there is substantial evidence that there is a significant relationship between knowledge of facts about the cooperative and some phases of participation. However, it is possible that this type of knowledge will only assure minimum participation. One may have to know how to become a member, may be asked to produce his evidence of membership, and know what services are offered before he can patronize the cooperative. However, these are merely minimum elements of participation.

Knowledge of when the organization was formed, the size of the organization and dollar volume may be interesting facts but how essential are they to meaningful participation? Size of organization and dollar volume may be important data in determining expansion or contraction policy but not perhaps too important in the normal year to year activity.

Name of the present manager and president might become important from the point of view of persons to contact with criticisms and also important from the point of view of identity with the organization. Even more important might be knowing the board of directors who are the real policy making

¹Losey, op. cit., p. 227.

groups in the short run in most cooperatives.¹

An understanding of the rights and responsibilities of members, the reason why the cooperative was organized, how local profits are used, how managers and directors are selected all may be important to meaningful participation. These last mentioned factors are closely related to what have been called understanding of basic principles in this study.

It seems logical that the person who has knowledge of the facts about his cooperative may also have a high degree of understanding of basic cooperative principles. There is a correlation of .290 between understanding of facts and understanding of basic theoretical cooperative principles.

Therefore, the proposition is suggested that there will be a significant positive relationship between participation scores and the understanding of facts about the cooperative. However, it also seems logical that this relationship will not be as great as the relationship between participation scores and understanding of basic cooperative principles.

Hypothesis in the null form: There is no relation between member participation scores and knowledge of facts about the cooperative as measured by the knowledge of facts score.

¹When members' participation scores were compared on the basis of whether they knew none, one-fourth, one-half, three-fourths, or all of their board members there was a highly significant difference in scores. F was 18.14 where significance at the 1 per cent level is 3.39. Mean participation scores increased as the number of board members known increased.

The same general procedure was followed in developing the Knowledge of Facts about the Cooperative ¹ score as was followed in developing the Cooperative Participation score. The five items used to attempt to measure the knowledge of facts about the cooperative were:

- (1) Knowledge of the salary of manager of the local cooperative,
- (2) Knowledge of existence of wholesale cooperatives,
- (3) Knowledge of who were the cooperative board of directors,
- (4) Knowledge of whether or not their cooperative had an educational fund,
- (5) Knowledge of whether or not their cooperative was partially financed by the revolving fund method.

There is a significant relationship between scores. Coefficient of correlation is .289 where significance at the 1 per cent level is .159. The null hypothesis is rejected.

Since the null hypothesis is rejected, the original proposition that there will be a significant relation between participation scores and understanding of facts about the cooperative is supported. The relationship is positive. As suggested, this relationship is not as great as that between the participation scores and understanding of principles. Correlation coefficients are .289 and .492 respectively.

¹For actual questions used, weighting of items and a brief discussion of the score, see the Appendices.

Knowledge of existence of wholesale or "regional" cooperatives. Most of the cooperatives that operate in Iowa have found it to their advantage to affiliate with one or more wholesale cooperatives to serve their members better. The wholesale cooperative is now a very important part of the vertical integration scheme of farmer cooperatives. However, just like a member joining the local cooperative, the local cooperative joining the wholesale brings with it implicit and explicit responsibilities of participation.

Is knowledge about the existence of wholesale cooperatives associated with participation in local cooperatives?

There seem to be some logical reasons for thinking that awareness of the existence of wholesale cooperatives might affect participation. Many farmers mistrust any type of business they cannot actually observe in action. Historically they have been suspicious of organizations that operate at the state or national level. As long as it operates at the local level, where its operation can be observed, where they know its personnel, where they think they know how their money is being used or how their product is being handled they seem to be less suspicious. Many farmers are afraid of "bigness" as such and for this reason do not want their cooperatives to get too big. In fact 12 per cent of the members interviewed thought that wholesale cooperatives might now be monopolies. So even though almost all cooperatives are affiliated with wholesales,

if the local member does not know it he might continue to participate more, to be more willing to finance, bear risks more readily and get others to join his local cooperative.

On the other hand, there are many farmers who recognize the need for the wholesale. They realize that many of the major savings can no longer be made at the local level but must be made at the wholesale or manufacturing level. They realize that the only way that these savings can be made is for local cooperatives to band together and form wholesales. They not only realize the need for the wholesale but realize the only way wholesales can be operated on a sound basis is to have sound locals. The locals must help finance, bear risks, determine policy, help boost, carry on educational programs and patronize the wholesale. This takes active participation in the local. Some cooperative members honestly feel that although the need for a cooperative in a specific local market may not be great there is a general need for wholesales that can make an impact on the larger market. It is mainly through active participation in the local that participation is possible in the wholesale.

It is believed that the latter argument is stronger and more realistic than the former. Thus it seems reasonable to suggest the proposition that participation scores will differ significantly when compared on the basis of whether or not members are aware of the existence of wholesale cooperatives. In addition, it is expected that those who do know about

wholesales will have the higher participation scores.

Hypothesis in the null form: There is no difference in participation scores when members are compared on the basis of whether or not they are aware of the existence of wholesale cooperatives.

Despite the fact that almost all locals are affiliated with some wholesale, over 40 per cent said they did not know that there were wholesale cooperatives. The mean participation score of this group was 43.0 while the participation score of the group that was aware of wholesales was 46.6 (Table 75).

Table 75. Participation of members by knowledge of existence of wholesale cooperatives.

| Awareness of wholesales | Member | | Mean partici- pation score |
|----------------------------------|------------|-------------|-------------------------------|
| | Number | Per cent | |
| Know wholesales exist | 157 | 58.6 | 46.6 |
| Did not know wholesales exist | <u>111</u> | <u>41.4</u> | 43.0 |
| | 268 | 100.0 | |

There is a significant difference in participation scores (Table 76). F is 4.96 where significance at the 5 per cent level is 3.88. The null hypothesis is rejected.

Since the null hypothesis is rejected, the original proposition that participation scores would differ signifi-

Table 76. Analysis of variance cooperative participation scores by knowledge of existence of wholesale cooperatives.

| Source of variation | Degrees of freedom | Sum of squares | Mean squares |
|---------------------|--------------------|------------------|--------------|
| Between groups | 1 | 844.10 | |
| Within groups | <u>266</u> | <u>45,236.41</u> | |
| Total | 267 | 46,080.51 | |

cantly when compared on the basis of whether or not members are aware of the existence of wholesale cooperatives is supported. The difference is as expected in direction in that those who were aware of the wholesale cooperatives had the higher score.

Member opinion of benefits from wholesales. As stated above most of the support and participation in wholesale cooperatives must come through the local cooperative. Therefore, it seems reasonable to expect the members who are aware of wholesale cooperatives to participate in different degrees in local cooperative activities depending on whether or not they thought the wholesale was benefitting them.

There is of course the possibility that even though the member did not think the wholesale was benefitting him in any way he would continue to participate actively in the local because of the benefit he thought he was receiving from the local. On the other hand, a member might feel that both the

local and the wholesale were benefitting him thus he would participate in the local to make sure of receiving both those benefits. There also might be the members who doubted the need for a wholesale. The major way he could participate in and support the wholesale would be through his local so this also might lead to a high degree of local participation.

It seems logical to expect that participation scores would differ significantly when members are compared on the basis of their thinking the wholesale benefits them or does not benefit them.

However, when the data were gathered it appeared that there was an important third category that had not been considered. Of the 157 members who were aware of wholesale cooperatives, over 70 per cent thought that they benefitted from the wholesale. Only seven per cent did not. The remaining 22 per cent knew wholesale cooperatives existed but did not know if the wholesale benefitted them or not. The seven per cent is a relatively small number of members (11 members) so generalizations here should be made with care.

The proposition was reformulated to state that participation scores would differ significantly when members are compared on the basis of thinking their wholesale benefits them, does not benefit them or do not know whether or not it benefits them. It was expected that those who thought the wholesale benefitted them would have the highest score.

Hypothesis in the null form: There is no difference in

participation scores when members are compared on the basis of their thinking the wholesale cooperative benefits them, does not benefit them, or do not know whether or not it benefits them.

Mean participation scores for the category that thought the wholesale benefitted them were 49.2 (Table 77). The

Table 77. Participation of members by opinion of benefit received from wholesale cooperatives.

| Wholesale benefits | Member | | Mean participation score |
|-----------------------------------|-----------|-------------|--------------------------|
| | Number | Per cent | |
| Wholesale does benefit | 112 | 71.3 | 49.2 |
| Wholesale does not benefit | 11 | 7.0 | 45.5 |
| Do not know if wholesale benefits | <u>34</u> | <u>21.7</u> | 38.2 |
| Total | 157 | 100.0 | |

participation score of those who did not think the wholesale benefitted them was 45.5 while the score for the group that did not know whether or not the wholesale benefitted them was only 38.2. Additional analysis needs to be made on this point.

One possible explanation might be that those members who do not know whether or not the wholesale is benefitting them are very confused and suspicious and therefore are not participating in their local cooperative. On the other hand, it may be very difficult even for the member who knows about

wholesales to determine whether or not he is benefitting from the wholesale.

There is a significant difference in scores (Table 78). F is 9.42 where significance at the 1 per cent level is 4.76. The null hypothesis is rejected.

Table 78. Analysis of variance cooperative participation scores by opinions of benefits received from wholesale cooperatives.

| Source of variation | Degrees of freedom | Sum of squares | Mean squares |
|---------------------|--------------------|------------------|--------------|
| Between groups | 2 | 3,153.42 | 1,576.71 |
| Within groups | <u>154</u> | <u>25,787.13</u> | 167.45 |
| Total | 156 | 28,940.55 | |

Since the null hypothesis is rejected, the original proposition that participation scores would differ significantly when members are compared on the basis of thinking their wholesale benefits them, does not benefit them, or do not know whether or not it benefits them is supported. The direction of the difference is as expected to the extent that those who think they receive benefits have the highest scores.

Satisfaction and criticisms of cooperatives

Satisfaction with cooperative. What is the relationship between general satisfaction with an association and participation in it? It is recognized that there can be many

definitions of satisfaction by the individual members. Each member may be satisfied but for entirely different reasons. The very thing that makes one person satisfied may make the next person dissatisfied. However, past studies have shown there has been enough agreement on the definition of satisfaction to make this a fruitful area of study.

In his labor study Rose found that, "The more a member participates in his union, the more favorable is his attitude toward it."¹

In his general participation study of rural people Lindstrom states that evidently those who did not participate comprise the bulk of those with non-favorable attitudes toward organizations, whereas the participating members of business and educational organizations are, in general,² favorably disposed toward them.

A summary statement from Anderson and Sanderson helps clarify and point out interrelations between satisfaction and participation as related to farmer cooperatives:

In each situation those farmers who are patron members, practiced patronage, and attended the organization meeting most regularly, expressed more favorable opinions about these three aspects of the organizations than did those who are only casual patrons, attend no meetings, and do not become members. This is particularly true with respect to the relationship between frequency of patronage and the opinions relative to advantages of membership. In fact regularity of patronage seems to be related

¹Rose, op. cit., p. 51.

²Lindstrom, op. cit., p. 116.

more favorably to the farmer's opinion about membership advantages, policies and practices of the organization and the quality of product than does patron-membership or attendance. In other words, if the organization can build habitual buying farmers, it would seem to improve opinions. But the reverse is also probably true, and it may be the factor of chief significance, namely, that favorable opinion to policies, quality and advantages of membership leads to regularity in buying. These are interrelated factors and should be promoted as such in the organization's development.¹

Stern developed a satisfaction score which measured satisfaction on the following items: future of cooperatives, contribution of cooperatives to agriculture, ability of cooperative leaders and members, and members having a fair chance to have their say in the cooperative. He found that the more favorable attitude scores were usually associated with those who did a greater per cent of their business with their cooperative. He also found that in general there was a high correlation between favorableness and the extent to which the member participated in the activities of his organization such as holding office, attending meetings and voting on policy.² Stern concluded that farmer support, as expressed through favorableness of attitude, was even stronger when he also received the personal and social values derived from participation in the activities of his cooperative. Lack of member participation goes hand in hand with an unfavorable attitude.³

¹Anderson and Sanderson, op. cit., p. 29.

²Stern and Doran, op. cit., p. 33-34.

³Ibid., p. 38-40.

Henning and Poling found that of those who did all or part of their business with cooperatives 89 per cent thought their association had been of some value to them while of those who did no business with the cooperative only 46 per cent thought¹ they got some value from the cooperative.

Losey found the only seemingly contradictory evidence on this point. He found that there was no significant association between general good will toward the organization and the member's participation in it in terms of meeting attendance² and regular patronage.

This limited research available on the relation of satisfaction to participation is indicative of the focus of past research on satisfaction as an end in itself. Most of the research has given major emphasis to the personal and social factors related to satisfaction without first establishing that satisfaction is related to either participation in general or rational meaningful participation.

The evidence points strongly to a relationship between satisfaction and participation. However, in the broader philosophical framework it should be recognized that satisfaction itself might be a false end for which to strive. Some cooperative managers say that as long as they can return a big patronage refund the members will be satisfied and continue to

¹Henning and Poling, op. cit., p. 30.

²Losey, op. cit., p. 229.

¹
patronize. Frank Robotka has pointed out many times that co-operatives can be successful in a business sense but not be successful in the cooperative sense. He has suggested that success and satisfaction, based purely on a criterion of business success, may be on unsound ground in a cooperative association. Satisfaction based on understanding and rational participation is much sounder ground upon which cooperatives can be based.

The definition of being satisfied or not satisfied is probably based on the definition of the situation as it now exists in the local cooperative. In the main one would expect that those who are best satisfied do participate in the cooperative activities. It is also possible that those who are dissatisfied might continue to participate and at the same time be trying to improve the cooperative so that they will be more satisfied.

One of the greatest dangers, however, is the member who is satisfied and is basing that satisfaction on only one or two important criteria. As pointed out above, it may be size of patronage refund or immediate price. Meaningful satisfaction, from the long run point of view of the cooperative, should probably be based on an understanding and examination of the entire functioning of the cooperative, not just one or

¹Personal conversation, numerous speeches the author has heard him make and writing such as Frank Robotka. How cooperative are we. Iowa Agr. Ext. Serv., Econ. and Soc. Section. 1947.

two criteria. The member should not only examine refund and prices, but financing, risk bearing, control, management, education, volume of business, efficiency of operation and alternative uses of resources. If this type of examination is made and the member is highly satisfied with his cooperative then a very high relation between satisfaction and participation would be expected.

On the basis of the evidence from the review of literature and the discussion, the proposition is advanced that there will be a significant positive relationship between member participation scores and satisfaction scores.

Hypothesis in the null form: There is no relationship between member participation scores and member satisfaction scores.

The same general procedure was followed in developing the Satisfaction with Cooperative¹ score as was followed in developing the cooperative participation score. The following items were used as indication of the member satisfaction:

1. Opinion that he received some benefit from the cooperative,
2. Opinion that the cooperative exerted a favorable competitive price and service influence in the market,
3. Opinion that the cooperative was giving some degree of savings in terms of prices,

¹For actual questions used, weighting of items and brief discussion of the score see the Appendix.

4. Opinion that the cooperative was really saving the member money,
5. Stated satisfaction with price savings,
6. Opinion that "coop" products were as good or better than "name brand" competitors,
7. Opinion that member had a say in running the cooperative.

There is a highly significant relationship between the scores. Coefficient of correlation is .476 where significance at the 1 per cent level is .159. The null hypothesis is rejected.

Since the null hypothesis is rejected, the original proposition that there would be a significant relation between participation scores and satisfaction scores is supported. The relationship is positive.

Greatest benefit from cooperative. The review of literature disclosed no major findings related to this characteristic.

A previous section indicated that members joined the cooperative for different reasons. However, there was no difference in participation when members were compared on the basis of why they joined the cooperative.

It would seem logical for different people to mention different things as their greatest benefit from belonging to the same organization. Although different people mention different benefits it is still quite possible that these

different benefits are of equal importance in relation to motivating the people who mentioned them. However, it is also quite possible that some benefits tend to have differential motivational power. For instance, if a member really believed in the "cooperative way" as being in itself something better than what he might term the "competitive way" he might participate to the fullest extent in his cooperative although it was not having any impact on the market, was not operating efficiently or saving him money. On the other hand the person whose greatest benefit was pure economic savings might not participate in cooperative activities the moment the cooperative failed to give him tangible short run financial savings. There are also some members who undoubtedly feel that the cooperative is of no benefit to them.

Since the category of no benefit was included in the analysis along with other benefits it seems reasonable to advance the proposition that participation scores will differ significantly when compared on the basis of the greatest benefit members feel they receive from their cooperative. Hypothesis in the null form: There is no difference in participation scores when compared on the basis of the greatest benefit (including no benefit) that members say they receive from their cooperative.

Greatest benefits were classified into four groups (Table 79). There were a large number of other reasons but these did not have enough similarity for classification.

Table 79. Participation of members by stated greatest benefit, including none, from cooperative.

| Greatest benefit | Member | | Mean participation score |
|------------------------------------|-----------|-------------|--------------------------|
| | Number | Per cent | |
| No benefit | 9 | 3.7 | 28.4 |
| Dollar savings | 187 | 77.6 | 44.7 |
| Competitive influence | 19 | 7.9 | 45.3 |
| Doing business the cooperative way | <u>26</u> | <u>10.8</u> | 52.6 |
| Total | 241 | 100.0 | |

By far the largest group regarded dollar savings as their greatest benefit.

A second group thought of the greatest benefit in terms of economic savings but defined the benefit in broader terms by talking about the competitive influence that the cooperative had brought into and was maintaining in the market.

The third group stated their greatest benefit more in terms of doing business the cooperative way. To most this meant owning and operating their own business, controlling their own activities, being able to look out for their own interests, and working together rather than competing with each other. This they compared with having to sell to another type of business in which they had very little to say in determining how and for whose benefit the business was to be run.

Only nine members said they were getting no benefit from their cooperative. This number is very small and care should be taken in generalizing from these data because of the small number.

Those who felt they were getting no benefit from their cooperative had by far the lowest participation score. The group that listed doing business the cooperative way as the greatest benefit had the highest score.

There is a highly significant difference in participation scores (Table 80). F is 8.35 where significance at the 1 per cent level is 3.87. The null hypothesis is rejected.

Table 80. Analysis of variance cooperative participation scores by stated greatest benefit, including none, from cooperative.

| Source of variation | Degrees of freedom | Sum of squares | Mean squares |
|---------------------|--------------------|------------------|--------------|
| Between groups | 3 | 3,973.49 | 1,324.50 |
| Within groups | <u>237</u> | <u>37,572.36</u> | 158.53 |
| Total | 240 | 41,545.85 | |

Since the null hypothesis is rejected, the original proposition that participation scores would differ significantly when compared on the basis of the greatest benefit members stated they receive from their cooperative is supported. However, care must be used in generalizing from these data because of the small number of members in the no benefit

category.

A second analysis was made dropping out the no benefit category (Table 81). It is possible that the significant difference was due to this small number of cases with the very low participation scores.

Table 81. Participation of members by stated greatest benefit from cooperative.

| Greatest benefit | Member | | |
|------------------------------------|-----------|-------------|--------------------------|
| | Number | Per cent | Mean participation score |
| Dollar savings | 187 | 80.6 | 44.7 |
| Competitive influence | 19 | 8.2 | 45.3 |
| Doing business the cooperative way | <u>26</u> | <u>11.2</u> | 52.6 |
| Total | 232 | 100.0 | |

There is a significant difference in participation scores (Table 82). F is 4.48 where significance at the 5 per cent level is 3.04. The null hypothesis is rejected.

Since the null hypothesis is rejected, the original proposition that participation scores would differ significantly when compared on the basis of the greatest benefit members stated they receive from their cooperative is supported.

A single benefit against all other benefits. Members were not only asked what their greatest benefit was but what

Table 82. Analysis of variance cooperative participation scores by stated greatest benefit from cooperative.

| Source of variation | Degrees of freedom | Sum of squares | Mean squares |
|---------------------|--------------------|------------------|--------------|
| Between groups | 2 | 1,403.30 | 701.65 |
| Within groups | <u>229</u> | <u>35,892.14</u> | 156.73 |
| Total | 231 | 37,295.44 | |

other benefits they thought they received. Here again the three main benefits mentioned were money savings, competitive influence in the market and the cooperative way of doing business. Of course all members did not mention all three of these and many mentioned only one of them. However, in talking to members while taking the schedules the author had the feeling that the persons who gave these different answers had different attitudes toward their cooperative, and had a different degree of understanding about their cooperative. If this were true, one might also expect differential participation.

Do the people who think of benefits in terms of money saving participate to a different degree than other members? Do the people who think of benefits in terms of competitive market or of the cooperative way of doing business participate differently than other members?

It was felt that those members who mentioned doing business the cooperative way as one of their benefits seemed to

have a higher degree of understanding about their cooperatives and to feel more favorable toward their cooperatives. It did not seem unreasonable to expect this group of members also to participate in their cooperative to a greater degree.

The proposition was formulated that participation scores would differ significantly when members who mentioned doing business the cooperative way as one of their benefits were compared with those who did not mention it as a benefit.

Hypothesis in the null form: There is no difference in participation scores when members who said doing business the cooperative way was a benefit are compared with those who did not mention doing business the cooperative way as a benefit. The former category will have the higher participation scores.

Slightly over 46 per cent mentioned doing business the cooperative way was one of the benefits they received from belonging to the cooperative (Table 83).

There was a highly significant difference in the scores (Table 84). F is 21.17 where significance at the 1 per cent level is 6.74. The null hypothesis is rejected.

Since the null hypothesis is rejected, the original proposition that participation scores would differ significantly when members who said doing business the cooperative way was a benefit were compared with those who did not mention doing business the cooperative way as a benefit. The difference is in the expected direction, those who mentioned doing business the cooperative way had the higher scores.

Table 83. Participation of members by those who mentioned doing business the cooperative way as a benefit against those who did not.

| Benefit | Member | | |
|--|------------|-------------|--------------------------|
| | Number | Per cent | Mean participation score |
| Mentioned doing business the cooperative way | 124 | 46.3 | 48.9 |
| Did not mention doing business the cooperative way | <u>144</u> | <u>53.7</u> | 41.8 |
| Total | 268 | 100.0 | |

Table 84. Analysis of variance cooperative participation scores by those who mentioned doing business the cooperative way and those who did not.

| Source of variation | Degrees of freedom | Sum of squares | Mean squares |
|---------------------|--------------------|------------------|--------------|
| Between groups | 1 | 3,397.05 | 3,397.05 |
| Within groups | <u>266</u> | <u>42,683.46</u> | 160.46 |
| Total | 267 | 46,080.51 | |

The same general feeling existed when those who mentioned the competitive influence on the market as one of the benefits were compared with those who did not mention this as a benefit. However, this feeling was not as definite as in the prior case of doing business the cooperative way. It should also be recognized that in many cases the cooperative had not or was not creating a competitive influence on the market.

The proposition is suggested that there is a significant difference in participation scores when those members who said competitive markets were one of their benefits are compared with those who did not say competitive markets were a benefit. Hypothesis in the null form: There is no difference in participation scores when those members who said competitive markets were one of their benefits are compared with those who did not mention competitive markets as a benefit.

Over 35 per cent mentioned the competitive market created or maintained by the cooperative as one of the benefits from belonging to the cooperatives (Table 85).

There is no significant difference in the scores (Table 86). F is 3.12 where significance at the 5 per cent level is 3.88. There is not sufficient evidence to reject the null hypothesis.

Table 85. Participation of members by those who mentioned the competitive influence on the market as a benefit and those who did not.

| Benefit | Member | | Mean participation score |
|---|------------|-------------|--------------------------|
| | Number | Per cent | |
| Competitive market mentioned as a benefit | 106 | 39.6 | 46.8 |
| Competitive market not mentioned as a benefit | <u>162</u> | <u>60.4</u> | 43.9 |
| Total | 268 | 100.0 | |

Table 86. Analysis of variance of cooperative participation score by those who mentioned the competitive influence on the market as a benefit and those who did not.

| Source of variation | Degrees of freedom | Sum of squares | Mean squares |
|---------------------|--------------------|------------------|--------------|
| Between groups | 1 | 534.67 | 534.67 |
| Within groups | <u>266</u> | <u>45,545.84</u> | 171.22 |
| Total | 267 | 46,080.51 | |

Since the null hypothesis was not rejected, the original proposition that there would be a significant difference in participation scores when members who said the competitive market was a benefit is not supported. Almost identical results were found when those who felt money savings were a benefit were compared with those who did not state it as a benefit. There was no significant difference (Table 87).

Reason for joining related to greatest benefit. John arrived at a conclusion that may be very important to formal organization theory. He found,

The farmers who reported as their major advantage of the cooperative the attainment of their particular objective for joining were more favorable than others reporting the same benefit but having joined for other reasons.¹

¹John, op. cit., p. 31.

Table 87. Analysis of variance cooperative participation scores by those who mentioned money savings as a benefit and those who did not.

| Source of variation | Degrees of freedom | Sum of squares | Mean squares |
|---------------------|--------------------|------------------|--------------|
| Between groups | 1 | 524.96 | 524.96 |
| Within groups | <u>266</u> | <u>45,555.55</u> | 171.26 |
| Total | 267 | 46,080.51 | |

John also found a relation between favorableness to the cooperative and some elements of participation.

If this is true then one might also expect the person who

joined the cooperative to save money and felt that dollar savings were his greatest benefit would participate to a greater extent than the person who joined for some other reason and felt dollar savings were his greatest benefit. The same might be true of a person who joined to save money and felt that some other benefit was his greatest benefit.

The proposition might be stated that there will be a significant difference in participation scores when members who joined for a specific reason and feel this reason is their greatest benefit are compared with those who joined for the same specific reason and feel some other benefit is their greatest.

Hypothesis in the null form: There is no difference in participation scores when members are compared on the basis of (a) their joining for a specific reason and that reason is their greatest benefit and (b) joining for that same specific reason and feeling some other benefit is their greatest benefit.

Participation scores of members who joined the cooperative to save money and who stated that their greatest benefit was economic savings were compared with members who said they joined to save money but who gave some other reason as their greatest benefit (Table 88).

There is no significant difference between the scores (Table 89). The value of F was 3.72 where significance at the 5 per cent level is 3.94. There is not sufficient evidence to reject the null hypothesis.

Table 88. Participation of those members who joined the cooperative to save money by those who listed economic savings as greatest benefit and those who did not list economic savings as greatest benefit.

| Greatest benefit | Members who joined to save money | | |
|-------------------------------|----------------------------------|-------------|--------------------------|
| | Number | Per cent | Mean participation score |
| Listed economic savings | 86 | 83.5 | 43.3 |
| Did not list economic savings | <u>17</u> | <u>16.5</u> | 50.2 |
| Total | 103 | 100.0 | |

Table 89. Analysis of variance cooperative participation scores of those who joined cooperative to save money by those who listed economic savings as greatest benefit and those who did not list economic savings as greatest benefit.

| Source of variation | Degrees of freedom | Sum of squares | Mean squares |
|---------------------|--------------------|------------------|--------------|
| Between groups | 1 | 675.41 | 675.41 |
| Within groups | <u>101</u> | <u>18,344.28</u> | 181.63 |
| Total | 102 | 19,019.69 | |

Though F approaches significance it should be noted that the relationship is the opposite from that found by John. Those who joined to save money and listed economic savings as their greatest benefit had the lowest scores. This may suggest that the type of benefit that the member feels he is now receiving is more important than the satisfaction of the original reason for joining.

Since the null hypothesis was not rejected, the original proposition that there would be a significant difference in participation scores when members who joined for a specific reason and felt this reason was their greatest benefit were compared with those who joined for the same specific reason and felt some other benefit was their greatest is not supported.

Criticisms or no criticisms of cooperative. Criticisms of the cooperative are not necessarily bad. It is probably only through critical evaluation of the functioning of the cooperative that it will stay abreast of the times and continue to improve the function desired by the members.

John found that the farmers who reported disadvantages of the organization were as likely to be favorable toward it as those reporting none.¹ Satisfaction and participation were significantly related.

Probably more important than criticisms per se are the type of criticisms, the framework within which the criticisms are made and what is actually done with the criticisms by both the member and the person or group to whom the criticisms are made. It should be remembered that a part of the participation score was based on the assumption that an ideal participating member would take his criticisms to the management for constructive action.

¹John, op. cit., p. 26.

Recognizing the above limitations of the present data this section deals with the relation of participation to whether or not the member has criticisms. The next section will deal with participation and type of criticisms.

As implied above, it is difficult to determine logically whether those who criticize or those who do not criticize would be most active in cooperative participation. If it is assumed that cooperative members feel a responsibility to their cooperative it is conceivable that those who are most critical would participate to the fullest extent to attempt to remedy the faults of the cooperative. It is also possible that these members might be quite active in participating in policy determination but might not boost their cooperative, finance, bear risks, or even fully patronize their cooperative until the factors contributing to their criticisms had been remedied.

It seems to the author that there is another large group of members who are critical of the cooperative because they do not understand it, its problems and activities. It is doubted that this group participates in the cooperative to any marked degree.

Past research in this field is not conclusive either. Rose found that in regard to specific criticisms of the union staff there were some respects in which the frequent attenders at meetings were more critical than the infrequent attenders. Those who attend regularly but not frequently (Rose calls

these the backbone of the union) are least critical of the staff on almost all questions.¹

In cooperative studies Gibson found conflicting evidence. In the Dairyman's League those who attended the greater number of meetings seemed to be somewhat less critical. However, in the Sheffield organization more frequent attendance tended to make members more critical.² Stern found that of those members who complained that the cooperative was too demanding on the farmer or that the farmer did not have enough control not one had attended a cooperative meeting during the year.³ John found that those members who were strongly favorable to their cooperative did participate more in some elements of cooperative activity. He also found that the highest percentage of those who had no objections (very closely related to criticisms) came from the strongly in favor of the cooperative group.⁴

Experience with Iowa cooperatives leads the author to the following tentative conclusion. Criticisms of Iowa cooperative members can be polarized as follows: (1) A very small group of well informed cooperators who are critically evaluating their cooperatives and do not like what they find and are attempting to improve them. This group is critical of their cooperatives but usually continue to participate

¹Rose, Union solidarity, p. 53.

²Gibson, op. cit., p. 269-270.

³Stern and Doran, op. cit., p. 18.

⁴John, op. cit., p. 22.

actively and attempt to improve them. (2) A relatively small and very vocal group of members who know very little about basic cooperative principles and the activities of their local organization but are mainly destructively critical of the cooperative on specific and mainly superficial bases. (3) The large majority of the membership are passive, not evaluating the cooperative and satisfied enough with its functioning not to be critical. They voice no criticisms.

On this basis the proposition is stated that participation scores would differ significantly when compared on the basis of whether or not members have criticisms of their cooperative. Those members who stated criticisms participate the least.

Hypothesis in the null form: There is no difference in member participation scores when compared on the basis of whether or not they have criticisms of their cooperative.

Approximately 30 per cent of the members said yes when asked, "Do you have any criticisms of your cooperative?" The mean participation score of the group that had criticisms was 42.2 while the mean score of those who had no criticisms of their cooperative was 46.4 (Table 90).

There is a significant difference (Table 91). F is 5.84 where significance at the 5 per cent level is 3.88. The null hypothesis is rejected.

Since the null hypothesis is rejected, the original propo-

Table 90. Participation of members by those who stated or did not state criticisms of cooperative.

| Criticisms | Member | | Mean participation score |
|-------------------|------------|-------------|--------------------------|
| | Number | Per cent | |
| Had criticisms | 83 | 31.0 | 42.20 |
| Had no criticisms | <u>185</u> | <u>69.0</u> | 46.4 |
| Total | 268 | 100.0 | |

Table 91. Analysis of variance cooperative participation scores by those who stated criticisms or did not state criticisms of cooperative.

| Source of variation | Degrees of freedom | Sum of squares | Mean squares |
|---------------------|--------------------|------------------|--------------|
| Between groups | 1 | 990.25 | 990.25 |
| Within groups | <u>266</u> | <u>45,090.26</u> | 169.51 |
| Total | 267 | 46,080.51 | |

sition that participation scores would differ significantly when compared on the basis of whether or not members had criticisms of their cooperative is supported. In addition, the expectation that those who have criticisms would participate the least is also supported.

Type of criticisms. Here again the review of research gave little evidence upon which to base a hypothesis. Though not directly applicable to the present analysis Rose found that people who evaluated (or criticized) union staff members

differently also attended meetings at different rates. A larger percentage of those who attended 12 or more meetings said some of the union staff members were "radical," "too ambitious," or "don't carry through on the job" than did those¹ who attended less than 12 meetings.

In research closely related to this point Stern found that only one of the members who was critical of the prices offered by the cooperative had attended the annual meeting during the past year. None of those who complained about too many demands on the farmer and the lack of control by the farmers² had attended a cooperative meeting during the year.

Perhaps a more meaningful hypothesis could be formulated if the various criticisms are examined and classified.

Only about 30 per cent, 83 members, stated that they had criticisms of their cooperative. This group was asked to specify their criticisms. These criticisms were then classified into seven general areas. In almost all cases the 83 members made criticisms in only one general area.

The largest group made criticisms of management. These criticisms were of poor and inefficient management, the manager and the board of directors, as well as a very few saying the management showed favoritism to a few members.

Closely related to this type of criticisms were those

¹Rose, Union solidarity, p. 54.

²Stern and Doran, op. cit., p. 18.

related to specific policies of the cooperative. Main criticisms were of milk tests, cleanliness regulations in dairy cooperatives, and the way payments were made.

Another group made criticisms of the personnel of the cooperative. These criticisms were made in direct relation to personnel and were critical on points of courtesy, abruptness, undesirable characteristics, carelessness of dress and in handling the products, and not trying to give good, quick efficient service.

A smaller group were critical of the financial policy of the cooperative in terms of the revolving funds, credit and low operating capital.

The smallest group treated here were critical of the size of the cooperative. The two main criticisms that came out in relation to specific cooperatives were one being too small, and the other too large and thus constituting a monopoly.

Poor prices and poor quality were also mentioned but in such small numbers that it was decided not to treat them statistically.

On the basis of an examination of the above classes of criticisms, it is difficult to determine logically whether these classes of criticisms might be significantly associated with differential participation in cooperative activities. One possible basis of differentiation might be the general criticisms over against the specific criticisms. The general

and the specific are probably related. In his pioneer study of attitudes related to cooperatives John found that specific attitudes were found to influence the shaping of general attitudes in varying degrees. John points out that one very strong objection is often dominant in determining the general attitude.¹ However, he also stated that various disadvantages (closely related to criticisms in this study) reported by members concerning the cooperative are not a reliable basis for judging the general attitude toward the cooperative. John concludes that, "Some reported disadvantages seem to have had a greater influence than others in creating an opposing attitude."² John found there was a relation between participation and favorableness of attitude toward the cooperative.³

As pointed out in the previous section it is very difficult to logically deduce the relationship of participation to criticisms unless one knows the intensity and framework of the criticisms. These data are not available in this study. As John has put it,

A study of selected cases suggested that the intensity of a specific attitude is influenced by (1) what the operator considers to have value, (2) his conception of the function of cooperatives in providing these values, and (3) the extent to which he believes a

¹John, op. cit., p. 23.

²Ibid., p. 22.

³Ibid., p. 7, 10, 13.

particular function, which he¹ feels the cooperative should perform, is fulfilled.

It is assumed that intensity of attitude is related to participation or non-participation depending on favorableness of attitude toward the cooperative.

Largely on the basis of the conclusions of John in relation to the importance of specific attitudes and that some reported disadvantages had greater influence than others in determining attitudes the proposition is suggested that participation scores of members will be significantly different when compared on the basis of the type of criticisms members have of their cooperative.

Hypothesis in the null form: There is no difference in member participation scores when they are compared on the basis of the type of criticisms, as categorized below, that members have of their cooperative.

Though there was no significant difference in participation scores those who criticized cooperative policy had the lowest scores and those who criticized the size of the cooperative had the highest scores (Table 92).

There is no significant difference in the scores (Table 93). F is less than one. There is not sufficient evidence to refute the null hypothesis.

Since the null hypothesis is not rejected, the original proposition that participation scores would be significantly

¹Ibid., p. 23.

Table 92. Participation of members by type of criticisms of cooperative.

| Type of criticisms | Members | | |
|------------------------------------|----------|-------------|--------------------------|
| | Number | Per cent | Mean participation score |
| Management | 23 | 30.7 | 42.1 |
| Cooperative policy (non-financial) | 17 | 22.7 | 37.8 |
| Personnel | 17 | 22.7 | 43.9 |
| Financial policy | 10 | 13.3 | 45.9 |
| Size of cooperative | <u>8</u> | <u>10.6</u> | 47.4 |
| Total | 75 | 100.0 | |

Table 93. Analysis of variance cooperative participation scores by type of criticisms of cooperative.

| Source of variation | Degrees of freedom | Sum of squares | Mean squares |
|---------------------|--------------------|------------------|--------------|
| Between groups | 4 | 721.79 | 180.45 |
| Within groups | <u>70</u> | <u>13,130.21</u> | 187.57 |
| Total | 74 | 13,852.00 | |

different when compared on the basis of the type of criticisms members have of their cooperative is not supported.

Characteristics of cooperatives to which members belong

Specific cooperative named most important by member. The data were not collected to measure participation in a given

cooperative. The sample was chosen on a community basis thus there was no guarantee of a certain number of members who belonged to any given cooperatives. As pointed out the members in the sample belonged to 83 different cooperatives located in 65 different centers. The members named 58 different cooperatives as the cooperative most important to them. However, there were 11 cooperatives named as the most important cooperative by 10 or more members (Table 94). Though this number is small and generalizations from these data should be made with care they are presented here to suggest hypothesis and areas of future research.

In contacts with cooperatives, seeing them operate, and talking with managers and directors about cooperative problems one definitely gets the feeling that some cooperatives have many more problems than others in getting member participation. From these observations common sense knowledge would suggest the proposition that participation scores of members would be significantly different when compared on the basis of specific cooperatives.

Hypothesis stated in the null form: There is no significant difference in cooperative participation scores when members are compared on the basis of the cooperative they named most important.

There was a significant difference in participation scores (Table 95). F was 2.10 were significance at the 5 per cent level is 1.89. The null hypothesis is rejected.

Table 94. Participation of members by specific cooperative named most important to them.

| Name of cooperative | Members | | |
|--|-----------|------------|--------------------------|
| | Number | Per cent | Mean participation score |
| 1. Burt, Cooperative Elevator | 14 | 8.2 | 50.1 |
| 2. Clarinda, Farmers Union Shipping Association | 10 | 5.8 | 34.9 |
| 3. Dayton, Farmers Elevator | 12 | 7.0 | 41.1 |
| 4. Dunkerton Coop Elevator | 11 | 6.4 | 50.6 |
| 5. Farley, Farmers Coop Creamery | 20 | 11.7 | 41.2 |
| 6. Garrison Coop Creamery Association | 12 | 7.0 | 46.2 |
| 7. Halontown Creamery Association | 15 | 8.6 | 48.8 |
| 8. Rock Valley, Farmers Elevator | 22 | 12.9 | 45.7 |
| 9. Volga Farmers Creamery Association | 21 | 12.3 | 50.8 |
| 10. Waukee, Farmers Cooperative Elevator Company | 22 | 12.9 | 50.6 |
| 11. Yale, Farmers Elevator Company | <u>12</u> | <u>7.0</u> | 44.3 |
| Total | 171 | 100.0 | |

This suggests that there may be some difference in participation due to the cooperative itself or to characteristics of the members that belong to a particular cooperative. The small number in the cells and the relatively small F

Table 95. Analysis of variance cooperative participation score by specific cooperative named most important to them.

| Source of variation | Degrees of freedom | Sum of squares | Mean squares |
|---------------------|--------------------|------------------|--------------|
| Between groups | 10 | 3,540.39 | 354.04 |
| Within groups | <u>160</u> | <u>26,910.85</u> | 168.19 |
| Total | 170 | 30,451.24 | |

should be taken into consideration when generalizations are made from these data. The study of characteristics of the cooperative and its members that may be associated with different degrees of participation may be a fruitful area of study.

Since the null hypothesis is rejected, the original proposition that participation scores of members would differ significantly by cooperative is supported.

Type of cooperative. Is there a significant difference in participation in cooperatives by type of cooperative? Cooperatives were classified into three main types: Marketing, mainly elevators and creameries; purchasing, petroleum; and combination marketing purchasing, both marketing and purchasing were done in large volume in the same cooperative.

An additional complication arose in the fact that many members belong to more than one cooperative and in many cases to more than one type of cooperative. Only 42 per cent of

the members belonged to just one cooperative. Thirty-nine per cent belonged to two cooperatives, 13 per cent belonged to three cooperatives and 6 per cent belonged to four or more cooperatives. If the member belonged to more than one cooperative much of the specific data about the cooperative and member participation in the cooperative was taken on a single cooperative the member judged most important to him. Thus members will be compared on the basis of type of cooperative that the member thought most important to him.

As has been noted, there has been some research done on differential participation in various classes of formal voluntary association. However, there is little research available that compares various types of organizations within a given classification.

Stern found there was a marked difference in participation in terms of attending meetings, holding office and voting on policy or delegate by type of cooperative. The highest participation was in the marketing cooperatives. There was relatively little difference in the other three types that Stern used--purchasing, marketing and purchasing, and service.¹ Korzan also found that there was a difference in attendance at annual meetings by type of cooperatives. Fifty per cent of the members attended the annual meeting of fruit and vegetable cooperatives, a type not prevalent in Iowa. Seventeen per

¹Stern, Farmers' support of cooperatives, p. 13.

cent attended the annual meeting of purchasing cooperatives, 19 per cent grain cooperatives and 29 per cent dairy cooperatives.¹

It might be reasoned that members might do a larger proportion of their business with creameries rather than with elevators or general and petroleum cooperatives because of fewer markets for cream and milk, and the perishable nature of the product that does not allow opportunity to receive competitive bids or store the product. Both the elevator and creamery probably represent a larger volume of farm firm business than do the purchase of farm supplies and petroleum and thus more time might be allocated to policy decisions and meeting attendance in these cooperatives.

On the basis of past research and reasoning above, the proposition is suggested that there will be a significant difference in participation score by type of cooperative.

Hypothesis in null form: There is no difference in cooperative participation score by type of cooperative the member mentioned as most important to him.

Members in the marketing cooperatives and in the combined purchasing and marketing cooperatives had approximately the same mean participation scores (Table 96). Although members of the purchasing cooperative had a lower score there was no significant difference.

¹Korzan, op. cit., p. 6.

Table 96. Participation of members by type of cooperative.

| Type | Member | | Mean participation score |
|---|-----------|-------------|--------------------------|
| | Number | Per cent | |
| Marketing | | | |
| Elevators | 134 | 50.0 | 45.7 |
| Creameries | 97 | 36.2 | 45.5 |
| Purchasing | 10 | 3.7 | 38.5 |
| Combination marketing and purchasing | <u>27</u> | <u>10.1</u> | 43.0 |
| Total | 268 | 100.0 | |

There is no significant difference in participation scores (Table 97). The value of F is 1.18 where F at the 5 per cent level is 2.64. There is not sufficient evidence to reject the null hypothesis.

Since the null hypothesis is not rejected, the original proposition that participation scores would differ significantly by type of cooperative is not supported.

Table 97. Analysis of variance cooperative participation score by type of cooperative.

| Source of variation | Degrees of freedom | Sum of squares | Mean squares |
|---------------------|--------------------|------------------|--------------|
| Between groups | 3 | 608.34 | 202.78 |
| Within groups | <u>264</u> | <u>45,472.17</u> | 172.24 |
| Total | 267 | 46,080.51 | |

Size of cooperative. The concept of optimum size of firm is an important concept in economics. Certain economies may be gained by increasing the size of the firm up to a certain point, after which the diseconomies of size outweigh the economies. Economists quite often speak of many of these diseconomies of size in terms of human factors such as management ability, coordination, integration, communication, and duplication of personnel services. There has been some speculation about this same concept, optimum size, in terms of human efficiency and size of group.

Bushee does not state the actual range of sizes of organizations he studied but it can be estimated that they range from 10 to 20 up to seven or eight hundred. He concluded that, ". . . large organizations, when compared with small, attract relatively few of their members to meetings."¹ Anderson and Ryan found that the organizations with the largest membership within each tenure class are the ones that are attended at least occasionally. The smaller organizations are more often not attended even occasionally. However, they also found that frequent or faithful attendance, at least half of meetings, was not closely associated with size.² Though Brunner shows no direct evidence to support his conclusion, he states that,

. . . there is an appropriate size and kind of organization for certain types of interests. In

¹Bushee, op. cit., p. 222.

²Anderson and Ryan, op. cit., p. 288.

the business of cooperative field the principle is known as 'sufficient volume of business.' There is also an appropriate 'volume of people,' neither too large nor too small, needed to carry on a mothers' club, a choral society or a subordinate grange.¹

Dotson concluded that formally organized clubs and societies which arouse the most interest and participation, as compared with what he calls nominal membership without participation, approximate the informal associations in structure and function. He gives athletic clubs and church affiliated clubs as the examples of those resembling the more primary groups and labor unions, military, fraternal and ethnic as examples of the non-primary groups.²

Cooperatives in this study ranged in size from 46 to 3,468 members. The mean number of members per cooperative was 617.

Within the range of cooperative size found in this study it seems plausible to suggest that there may be a point of optimum size of cooperative in terms of member participation.

It might be reasoned that when cooperatives get larger than, say 1,000, it is very difficult to find a large enough place to assemble all the members at one time. Once assembled it is very difficult to get two-way communication with a group this size. The individual member might feel very

¹Brunner, op. cit., p. 340.

²Dotson, op. cit., p. 689.

insignificant in an organization of this size and thus it might be hard to get him to attend the meeting and participate. Some cooperatives attempt to get around this type of meeting structure by having smaller district meetings or some sort of federated organization. However, in either case decisions are at least once removed from the individual and thus must be communicated back to the member with possible loss of identity with the decision and action.

A farmer cooperative of over 1,000 must be spread over a wide territory. It would be more difficult for all members to know each other very intimately. The member becomes more anonymous. Social pressure to participate might be very difficult to develop under these conditions. It would be difficult to develop any very intimate relations between the management, the manager and personnel and the entire membership. Individuals could not be dealt with on an individual problem basis.

It is probable that many of the considerations listed above might deter participation. The proposition is suggested that there will be a significant relationship between participation scores and size of cooperative. Hypothesis in the null form: There is no relationship between participation scores and size of cooperatives as represented by the range of sizes in this study.

The two variables, size of cooperative and participation scores, were plotted against each other on a scatter diagram.

An inspection of these data yields little evidence to reject the null hypothesis. There is no apparent relationship between these factors that would allow one to predict participation scores from size of cooperative. The inspection gives little indication that there is greater or less participation in any range of size of cooperatives. The actual correlation between size and scores was $-.108$ where significance at the 5 per cent level is $.159$.

Since the null hypothesis is not rejected, the original proposition that there would be a significant relation between participation scores and size of cooperative is not supported.

Several possible explanations for this finding are suggested: (1) There may be no optimum size cooperative from the participation point of view, (2) There may be an optimum size cooperative, but it is not within the size range of this study, (3) There may be an optimum size within the present size range but cooperatives of that size may not be exploiting that potential to the fullest extent, while other sizes of less potential are overcoming their handicaps to a greater degree. More detailed research is needed in this area.

Educational programs. Evidence presented above supports the proposition that there are different levels of participation in different cooperatives. Apparently this difference is not due to size of cooperative. Nor is this difference

apparently due to type of cooperative for there was found to be no significant difference in participation when members were compared on the basis of type of cooperative to which they belong. It might also be pointed out that there is no significant difference in satisfaction scores when members of these same specific cooperatives are compared.¹ Thus apparently satisfaction has not lead to this differential participation in specific cooperatives.

It is generally assumed that the members who have information and understanding about the cooperative will probably participate to a higher degree than those who do not. When these same cooperatives are compared on the basis of understanding of basic principles about the cooperatives and understanding of facts about the cooperative there is a highly significant difference in understanding of facts and understanding of principles scores.² A possible explanation may be that some of the differences in participation may be associated with different educational programs of the different cooperatives.

¹Satisfaction scores did not differ significantly when compared on the basis of the same specific cooperatives that were used in the participation score test. F is less than one.

²When members in these cooperatives were compared on the basis of understanding basic cooperative principles there was a highly significant difference. F was 4.01 where significance at the 1 per cent level is 2.42. When they were compared on the basis of understanding of facts about their cooperatives there was also a highly significant difference. F was 6.57 where significance at the 1 per cent level is 2.45.

The cooperatives of the state are attempting, in many different ways, to carry on educational programs that they hope will bring about understanding and participation in their associations. One question might be raised, is the number or type of educational programs carried on significantly related to participation?

Members in the sample for which participation scores were computed named 58 different cooperatives as their most important cooperative. Each of these cooperatives was surveyed about its educational program during the year of the study (Table 98). Though the type of information and education program is varied the following types probably include almost all of the information and education attempts that were being made by cooperatives at the time of the study.

(1) The annual meeting. All cooperatives have some sort of an annual meeting and these are looked on as part of their educational program.

(2) Special meetings. These are information, education and policy determination meetings called for the entire membership and all are invited and encouraged to participate. Only ten per cent of the cooperatives used this method of education.

(3) Planned tours and open houses. Almost a fourth of the cooperatives had planned tours or open houses, or both, for their members. This is the type of educational program that should inform members especially about the physical facilities

Table 98. Educational programs of cooperatives named most important cooperatives by members.

| No. of co- operatives having given com- bination of educational programs | Annual meeting | Special meetings | Tour or open houses | Neigh- borhood discus- sion | Local or whole- sale paper | Attend Direc- tors | school Manag- ers | Field man | Youth pro- gram |
|--|-------------------|---------------------|------------------------------|--------------------------------------|--|--------------------------|-------------------------|--------------|-----------------------|
| 11 | X | | | | | | | | |
| 3 | X | | | | | | X | | |
| 3 | X | | | | X | | | | X |
| 3 | X | | | | X | X | X | | |
| 2 | X | | | | | | | | X |
| 2 | X | | | | | | X | X | |
| 2 | X | | | | | X | X | | |
| 2 | X | X | | | X | X | X | | |
| 2 | X | X | | | X | X | X | X | X |
| 2 | X | | | | X | X | X | | X |
| 1 | X | | | | | | | X | |
| 1 | X | | | | X | | | | |
| 1 | X | | X | | | X | | | |
| 1 | X | | | | | | X | | X |
| 1 | X | | X | | | X | X | | |
| 1 | X | | | | X | | | X | |
| 1 | X | | X | | | | | | X |
| 1 | X | | X | | X | | X | | |
| 1 | X | | X | | X | | | | |
| 1 | X | | X | | X | X | | | |
| 1 | X | | X | | X | | | X | X |

Table 98. (Continued)

| No. of co- operatives having given com- bination of educational programs | Annual meeting | Special meetings | Tour or open houses | Neigh- borhood discus- sion | Local or whole- sale paper | Attend Direc- tors | school Manag- ers | Field man | Youth pro- gram |
|--|-------------------|---------------------|------------------------------|--------------------------------------|--|--------------------------|-------------------------|--------------|-----------------------|
| 1 | X | | X | | X | X | X | | |
| 1 | X | X | | | | X | X | | |
| 1 | X | X | X | | X | X | X | X | |
| 1 | X | | X | | X | | X | | X |
| 1 | X | | X | | X | X | X | X | X |
| 1 | X | | | | X | | X | | X |
| 1 | X | | X | X | | X | X | X | X |
| 1 | X | | X | X | | | X | | X |
| 1 | X | | X | X | X | X | X | | X |
| 1 | X | | X | | X | X | X | | X |
| 1 | X | | | | X | | X | X | |
| 1 | X | | | | X | X | X | X | X |
| 1 | X | | | | X | | X | X | X |
| 1 | X | | | | X | X | X | X | X |
| 1 | X | | | | X | | X | X | X |
| 58 | 58 | 6 | 16 | 3 | 29 | 23 | 35 | 15 | 24 |

of their cooperative. However, in many cases educational information about the business operation and basic cooperative principles are also presented.

(4) Neighborhood discussions. The neighborhood discussion idea has recently been promoted strongly by one of the major regional cooperatives. The idea in this specific approach is to get a group of neighbors together, listen to a radio broadcast about cooperatives and then discuss cooperatives. Other cooperatives have set up their own neighborhood discussion groups where members have invited in other neighbors, both members and nonmembers, for informal discussions, questions and answers about their cooperative. Summaries of the discussions are presented to the board and manager and, in some cases, special meetings have been called to discuss these summaries. Only three cooperatives had used this approach to education at the time of the study.

(5) Local or wholesale papers or "house organs." An increasingly common method of member contact is through the printed page. Fifty per cent of the cooperatives were using this approach. It should be pointed out that much of this material is of strictly business promotional nature rather than basic information and education about cooperatives as such. However, in the general framework of the participation score used in this dissertation this may of course increase participation.

(6) Schools for directors. Directors attend schools or training meetings that deal primarily with cooperative education, not with commodity or merchandising problems. Many cooperative leaders feel that since directors are delegated much power and authority at least they should certainly be well informed about cooperatives. Also, if they accept the responsibility of carrying on educational programs with their members they must first be informed, believe in the importance of education and be trained to participate in the educational program. Approximately 40 per cent of the cooperatives had sent at least one of their directors to some such school in the year of the study.

(7) Schools for managers. Managers attend schools or training meetings that deal primarily with cooperative education, not commodity or merchandising problems. Approximately 55 per cent said they had used this method of education.

(8) Field man. Some cooperatives have hired a field man to contact the membership directly. The field man's functions differ in different cooperatives. However, in general he attempts to develop better member relations, find out criticisms and problems that members raise about their cooperative, get out information and educational material, and increase business. About one-fourth of the cooperatives said they were using this technique.

(9) Youth programs. This type of educational program is

oriented at the youth of the community so might or might not be expected to be related to participation, depending on the length of time the program has been sponsored. However, despite the major emphasis on youth there should certainly be some carry over to the parents of youth, other members, and the general public if the program is conducted properly. Those members who were active in setting up, judging or sponsoring the program should also get increased understanding from this participation. In general, the following activities would be considered youth education by most cooperatives. The two most common are offering of prizes or buying prize livestock or other projects at 4-H or FFA fairs. There are some who would question the educational value of this type of program though it may have an important public relations value. Approximately 35 per cent have some such activity. Coop camps for youth are coming to play an increasing role in youth programs. In most cases these do have educational programs connected with them. Less than 10 per cent of the cooperatives used this type of education program. The use of Junior Boards and speech contests have also been used in youth education programs but no cooperative in the sample was using this type of educational approach. When the 4-H and FFA and the camp activities were combined, slightly over 40 per cent of the cooperatives had programs in one or more of these youth activities.

The cooperative was merely asked if it used any of the above educational approaches. No data were obtained on the philosophy, content, intensity, methods, or estimate of success of any of these educational approaches. It should be pointed out that the participation scores used in this study are based on individual member interviews and participation. No questions were asked directly of the member to determine whether or not he participated in any of these educational programs. Thus the cooperative may have what looks like a very complete educational program on paper and yet within the limits of the present data there is no way to determine how successful the educational effort was in getting ideas across to those contacted or whether or not the individuals in the sample participated in the educational program.

Recognizing these inadequacies, the following analysis is made.

Is it logical to expect the number of education programs carried on by the cooperative to be significantly related to member participation in the cooperative? At first thought this might appear to be logical. An educational program that is using several approaches and appeals to its membership might be expected to make a greater impact on its membership, and thus probably lead to greater participation. The number of different types of programs a local cooperative is attempting might be expected to be an indication of the attitude that

the cooperative has toward education, member relations and keeping its members informed so that rational decisions can be made and thus one might expect its membership to be more aware of its responsibility and participate to a greater degree. However, this is based on the assumption that the content and the methods are adequate.

On the other hand, it might be reasoned that if a cooperative does a good job on one educational approach it might be much more effective than spreading itself too thin and not doing a good job on any. The latter, of course, does not necessarily follow. It might also be assumed that those organizations that feel they have a participation problem are the ones who are most actively working on it and thus at this stage would not be expected to have a higher degree of participation.

The proposition suggested here, however, is that there will be a significant positive relationship between the number of educational programs and participation.

Hypothesis in the null form: There is no positive relationship between the number of educational programs a given cooperative sponsors and participation scores of its members.

While the correlation is .155 between participation scores and number of educational approaches and significance at the 5 per cent level is .121 the correlation is negative. There is not sufficient evidence to reject the null hypothesis.

Since the null hypothesis is not rejected, the original proposition that there would be a positive significant relationship between participation scores and the number of educational approaches used by the cooperative in which the member participates is not supported.

As stated above, generalizations made from these data should be made with extreme care. Again it should be emphasized that in gathering these data no attempt was made to get at the content, method, or estimated success of these various approaches listed. The cooperative was only asked to indicate if they were using the approach. As stated above, the use of the amount of effort being put into these several educational approaches might be an indication of the recognition by the cooperative of its participation problem and an honest attempt to meet those problems. Over time these same cooperatives might have a higher participation than those who are using only one or two approaches now.

However, there are several other hypotheses that need additional research and testing. Some cooperative leaders have been critical of the content of what is now being called cooperative education. It is criticized for dealing with commodity problems, sales promotion, emotional publications and facts about cooperative rather than an attempt to get across basic understanding of cooperatives, cooperative functioning and the economic aspects of cooperatives. The

assumption is that the latter type of educational program would bring about a higher degree of rational participation. Others criticize methods of education. Too much reliance on the printed page, institutional advertising, speeches, dry and unintelligible annual reports have been suggested as shortcomings of the educational programs. The entire area of the relation of education and rational participation needs additional research.

Time and money did not allow for the analysis of each of the various combinations of educational approaches in relation to participation since there were 41 different combinations of approaches. However, some analyses were made to determine if the use of a specific approach alone or combination with various other approaches were associated with differential participation in cooperatives.

For instance, the question might be asked, will members in those cooperatives that use a given approach alone or in combination with other approaches as a part of their educational program have significantly different participation scores than members of cooperatives who do not use this specific approach?

For example, the proposition might be suggested that members of cooperatives that used the special meeting approach as a part of its educational program will have significantly different participation scores than those members of cooperatives who did not.

It is doubted that any single approach as used by the cooperatives in the sample will be strong enough to be significant against all other combinations of approaches.

The hypothesis stated in the null form: There is no difference in participation scores when members are compared on the basis of whether or not their cooperatives utilize a specific educational approach. The specific approaches tested here will be special meeting, schools for directors and managers, field men, local paper, wholesale paper, local and wholesale paper combined, and youth program.

There was no significant difference in scores (Table 99). In no case was F greater than the value needed to be significant at the 5 per cent level. There is not sufficient evidence to refute the null hypothesis.

Since the null hypothesis is not rejected, the original contention that member participation scores would not differ significantly when they were compared on the basis of whether or not their cooperative used a given educational approach, alone or in combination with some other approach, is supported.

In addition, certain analyses were made on the basis of the use of one, two or three specific techniques in a given program. For instance, 205 of the 268 members who belonged to cooperatives that used at least one of school for directors, school for managers and youth programs as a part of their educational approach. The proposition might be stated that

Table 99. Summary table, member participation and F values for selector educational programs.

| Approach used | Member | | Value of F | Significant value of F |
|--|--------|--------------------------|-------------|------------------------|
| | Number | Mean participation score | | |
| 1. Special meeting ^a | 37 | 48.5 | | |
| All others | 231 | 44.5 | 2.92 | .05 is 3.88 |
| 2. Directors and/or managers attend school | 155 | 45.5 | | |
| All others | 113 | 44.6 | Less than 1 | |
| 3. Field man | 106 | 46.5 | | |
| All others | 162 | 44.2 | 2.05 | .05 is 3.88 |
| 4. Local paper only | 46 | 45.4 | | |
| All others | 222 | 45.0 | Less than 1 | |
| 5. Wholesale paper only | 67 | 45.5 | | |
| All others | 201 | 44.9 | Less than 1 | |
| 6. Both local and whole-sale paper | 32 | 48.1 | | |
| All others | 236 | 44.7 | 2.01 | .05 is 3.94 |
| 7. Youth program | 99 | 44.7 | | |
| All others | 169 | 45.3 | Less than 1 | |

^aParticipation scores of members in cooperatives who used special meetings alone or in combination with some other approach were compared with members of cooperatives who did not use special meetings in any form. The same general approach to analysis was made on all categories in the table.

these three approaches are so important that the members in the cooperatives that use at least one of these three would have significantly higher participation scores than those who used one of the three. However, this is doubted.

Hypothesis in the null form: There is no difference in participation scores when members are compared on the basis of whether or not their cooperative utilized at least one of the three approaches of school for directors, school for managers and youth programs.

Though there was no significant difference between the scores it can be seen that those who used none of the three programs had the higher scores (Table 100).

There was no significant difference in the scores (Table 101). F was 1.69 where F at the 5 per cent level is 3.88. There is not sufficient evidence to refute the null hypothesis.

Since the null hypothesis is not rejected, the original contention that there would not be significant differences in member scores when they are compared on the basis of whether or not their cooperative utilizes at least one of those approaches is supported.

A second step might be the consideration of the different possible combinations of approaches in relation to these three techniques.

It is doubted that these three approaches in education, as used by the cooperatives in the sample, are important enough so that participation scores by members will differ

Table 100. Participation of members by selected educational programs including at least one of school for managers, school for directors or youth programs.

| Educational program | Members | | |
|--|-----------|-------------|--------------------------|
| | Number | Per cent | Mean participation score |
| Used at least one of the three approaches, school for manager, school for directors and youth programs | 205 | 76.5 | 44.5 |
| Used none of the three approaches | <u>63</u> | <u>23.5</u> | 47.0 |
| Total | 268 | 100.0 | |

Table 101. Analysis of variance cooperative participation scores by selected educational program--use of at least one of school for managers, school for directors or youth program.

| Source of variation | Degrees of freedom | Sum of squares | Mean squares |
|---------------------|--------------------|------------------|--------------|
| Between groups | 1 | 290.40 | 290.40 |
| Within groups | <u>266</u> | <u>45,790.11</u> | 172.14 |
| Total | 267 | 46,080.51 | |

significantly when they are compared on the basis of what single approach or combinations of these three approaches are being used by the cooperative.

The hypothesis in the null form: There is no difference in participation scores when members are compared on the basis of whether or not the cooperative to which they belong used

one or a given combination of the three approaches--school for directors, school for managers and youth program.

Again caution needs to be taken in making generalization from these data (Table 102). Although there are ten respondents in one cell, it is quite possible that all of these are from one cooperative, thus this may measure difference due to cooperative not to educational technique.

There is no significant difference between the scores (Table 103). F is 1.74 where significance at the 5 per cent level is 2.26. There is not sufficient evidence to refute the null hypothesis.

Since the null hypothesis is not rejected, the original proposition that there would not be a significant difference when member participation scores are compared on the basis of what single approach or combinations of these three approaches are being used by their cooperative is supported.

Similar analyses were made by grouping neighborhood discussions, open house and special meetings; and local paper, wholesale paper and field man. Within each of these two groupings each of these was treated individually and in the various combinations that occurred, as indicated in the example¹ above. In no case was there any significant difference.

¹It is important to note that while there were no significant differences in participation scores when any of the three groups of these approaches were analyzed there was a highly significant difference in Knowledge of Facts About Cooperative scores in all cases when these same analyses were made. The hypothesis might be suggested that these educational programs

Table 102. Participation of members by three types and combination of these types of educational programs.

| Approaches used | Members | | Mean participation score |
|--|-----------|------------|--------------------------|
| | Number | Per cent | |
| Directors attend school only | 18 | 8.8 | 48.3 |
| Managers attend school only | 28 | 13.7 | 41.5 |
| Youth program only | 41 | 20.0 | 42.9 |
| All three above | 62 | 30.2 | 46.8 |
| Directors and managers attend school | 46 | 22.4 | 44.9 |
| Managers attend school and youth program | <u>10</u> | <u>4.9</u> | 36.6 |
| Total | 205 | 100.0 | |

Table 103. Analysis of variance cooperative participation score by three types and combination of these types of educational programs.

| Source of variation | Degrees of freedom | Sum of squares | Mean squares |
|---------------------|--------------------|------------------|--------------|
| Between groups | 5 | 1,570.21 | 314.04 |
| Within groups | <u>199</u> | <u>35,909.04</u> | 180.45 |
| Total | 204 | 37,479.25 | |

were bringing about some knowledge of facts about cooperatives but were not bringing about participation. The correlation between knowledge of facts and participation is only .289, while that between understanding of basic principles and participation is .492. It is possible that if educational programs were more oriented at developing basic understanding of cooperative theory, rather than knowledge of facts about cooperatives, greater participation might be accomplished.

Separate educational fund. Another contention that is often made about educational programs is that it is a good policy to set up a separate educational fund. It is quite often stated that in this manner the cooperative has recognized the importance of education and thus should realize the responsibility of conducting a good educational program. It is often suggested that the cooperative set aside the amount allowed (there is an implied obligation to set it aside in the Iowa law) so there will be a reasonable budget on which to operate the educational program. It is thought that if the separate fund is set aside as a specific educational fund cooperatives would likely be more conscientious in using the fund for legitimate educational work.

However, through field experience it is doubted if the mere setting up of the separate fund will accomplish any real objective in terms of an educational program and participation. Some cooperatives set them up to salve their conscience. Others do not set them up but have a philosophy of education and a program to go with it and draw out of the general expense funds as funds are needed for education. In fact in some cases it seems to the author that the separate educational fund creates problems in the minds of management--they actually have difficulty in determining ways to spend it and in some cases have big dinners with floor shows and very little cooperative education.

Another consideration is that money spent for education

is deductible as an expense in calculating income tax, whereas money set aside for educational reserve is subject to corporate income tax. Others use their educational funds for surplus reserves.

The null hypothesis is suggested: There is no difference in member participation scores when they are compared on the basis of whether or not their cooperatives have a separate educational fund.

There is no significant difference in scores (Table 105). F is less than 1. There is not sufficient evidence to refute the null hypothesis.

Since the null hypothesis is not rejected, the original proposition that there would be no significant difference in participation scores when members are compared on the basis of whether or not their cooperatives have a special educational fund is supported.

Thus, on the basis of the data available and the limited analysis that has been completed, any difference in amount of participation in cooperatives cannot be accounted for on the basis of the number of educational programs, specific educational approaches, the combination of approaches tested or on the basis of separate educational funds. Additional research must be done especially on content and methods before any more positive answers can be given on the relation of such educational programs to participation.

Table 104. Participation of members by whether or not cooperative had separate educational fund.

| Educational expenses | Members | | |
|-----------------------------------|------------|-------------|--------------------------|
| | Number | Per cent | Mean participation score |
| Have separate educational fund | 125 | 46.6 | 45.3 |
| Have no separate educational fund | <u>143</u> | <u>53.4</u> | 44.9 |
| Total | 268 | 100.0 | |

Table 105. Analysis of variance cooperative participation scores by whether or not cooperative had separate educational fund.

| Source of variation | Degrees of freedom | Sum of squares | Mean squares |
|---------------------|--------------------|------------------|--------------|
| Between groups | 1 | 16.00 | 16.00 |
| Within groups | <u>266</u> | <u>46,064.51</u> | 173.17 |
| Total | 267 | 46,080.51 | |

Community and community size

Community in which member resided. Most of the evidence presented thus far seems to support the proposition that there is no difference in general participation by community in the communities represented in this sample. Is there a difference in cooperative participation by community? Although there is no difference in general participation there may be something unique about the need and role of cooperatives that would make

for differential participation in cooperatives by community.

Past research has dealt with random samples chosen from cooperative membership lists or ordered names, area samples, or ordered geographic samples. In no case in the review of literature had cooperative participation been compared on the basis of different communities.

Field observation leads one to believe that cooperatives do play different roles in different communities and there is differential acceptance and participation in cooperatives in different communities. In some communities there may be a single cooperative, in many cases there are several cooperatives and in some cases no cooperatives.

On the basis of this knowledge and logic, the proposition is suggested that participation of members in cooperatives will differ significantly by community.

Hypothesis in the null form: There is no difference in participation scores when members are compared on the basis of the community in which they reside.

Participation scores did differ by community (Table 106). Scores ranged from 38.3 to 51.2.

There is highly significant difference in scores (Table 107). F is 2.49 where significance at the 1 per cent level is 2.22. The null hypothesis is rejected.

Since the null hypothesis is rejected, the original proposition that participation scores would differ significantly by community is supported.

Table 106. Participation of members by community in which they live.

| Community | Member | | Mean participation score |
|--------------|--------|----------|--------------------------|
| | Number | Per cent | |
| Burt | 23 | 9.6 | 49.4 |
| Cresco | 19 | 7.9 | 38.3 |
| Dayton | 15 | 6.2 | 41.0 |
| Dunkerton | 15 | 6.2 | 50.1 |
| Farley | 23 | 9.6 | 41.0 |
| Garrison | 14 | 5.8 | 45.7 |
| Hanlontown | 22 | 9.2 | 46.9 |
| Mt. Pleasant | 10 | 4.2 | 44.7 |
| Rock Valley | 25 | 10.4 | 44.0 |
| Runnels | 7 | 2.9 | 43.3 |
| Shambaugh | 10 | 4.2 | 34.9 |
| Volga | 23 | 9.6 | 51.2 |
| Waukee | 22 | 9.2 | 50.6 |
| Yale | 12 | 5.0 | 44.3 |
| Total | 240 | 100.0 | |

Table 107. Analysis of variance cooperative participation scores by community in which member lived.

| Source of variation | Degrees of freedom | Sum of squares | Mean squares |
|---------------------|--------------------|----------------|--------------|
| Between groups | 13 | 9,985.31 | 768.10 |
| Within groups | 226 | 29,827.62 | 131.98 |
| Total | 239 | 39,812.93 | |

The small number in some of the cells should be emphasized when generalizations are considered. It may be pointed out that the high and low community are in the same section of the state and the main cooperative in each of these two

communities is the same functional type, creamery. In only two of the communities are all the participation scores in one cooperative. However, the mean participation scores presented in the table are largely due to participation in different single cooperatives located in each of the different communities. Differential participation scores on the basis of specific cooperatives has already been presented.

Size of community in which the member resides. There was no apparent relationship between size of community and general participation. Does the same tentative generalization hold true for cooperative participation?

The review of literature gave no indication of specific research in relation to this point.

Field observation leads one to believe that there may be differential participation in cooperatives by size of community.

In the medium size community (say those with village center from 400 to 800) the cooperative seems to play a more important role. Quite often it is the only major source or outlet for a given service. It may have been organized to provide just such a service. This size of community usually allows for at least a minimum volume of business so that it is possible to operate on a relatively efficient basis. When centers are 1,000 or more in size the cooperative is one of several similar businesses. It and other businesses tend to

operate on a more secondary basis, thus communication between members and between the member and his employees and plant operation may also become more secondary and less communication and understanding take place.

On the basis of these rather superficial observations the proposition is suggested that there will be a significant difference in participation scores by size of community in which the cooperative is located.

Hypothesis in the null form: There is no difference in member participation scores when they are compared on the basis of size of community in which the member lived, as categorized below.

Those living in the smaller communities had a significantly higher participation score (Table 108).

Table 108. Participation of members by size of community center.

| Size of community | Member | | |
|-------------------|-----------|-------------|--------------------------|
| | Number | Per cent | Mean participation score |
| 250 - 999 | 205 | 76.5 | 46.2 |
| 1,000 - 5,000 | <u>63</u> | <u>23.5</u> | 41.6 |
| Total | 268 | 100.0 | |

There was a significant difference in scores (Table 109). F was 6.02 where significance at the 5 per cent level is 3.88. The null hypothesis is rejected.

Since the null hypothesis is rejected, the original

Table 109. Analysis of variance cooperative participation score by size of community center.

| Source of variation | Degrees of freedom | Sum of squares | Mean squares |
|---------------------|--------------------|------------------|--------------|
| Between groups | 1 | 1,019.95 | 1,019.95 |
| Within groups | <u>266</u> | <u>45,060.56</u> | 169.40 |
| Total | 267 | 46,080.51 | |

proposition that participation scores will be significantly different when compared on the basis of size of community, as categorized, is supported.

The Agreement of Other Research Findings with the Findings of the Present Study

The first minor objective of this dissertation is contained in the proposition that research findings and generalizations from other geographic and subcultural areas, in a range of rural and urban situations, and from formal voluntary associations in general, and subclasses of formal associations, will apply to a specific type of formal voluntary association in a given geographic area, farmer cooperatives in Iowa. As the literature was reviewed the great variety of participation studies became evident. The research cited in relation to specific hypotheses and a quick reading of the description of the studies in the appendix should impress the reader of this fact. The research has differed as to objective, scope,

locale, population, methods of collecting and analyzing data and reporting. A consistent attempt has been made to keep the cited findings as comparable as possible and in some instances to point out limitations of the data of the accompanying analysis.

It should be remembered that most of the hypotheses were tested on the basis that participation scores would differ significantly when compared on the basis of certain selected characteristics. For instance, the proposition was suggested that member participation scores would differ significantly when compared on the basis of formal educational level. Past research had tested this same hypothesis but had classified the data in many different ways. Some had treated education as a grade continuum, others on the basis of the categories of grade school, high school and beyond high school. The proposition can be tested as stated above but the exact description of the category that is most active or least active may not be comparable because of the classification of the data. Thus, comparisons in this section will be made on the basis of whether or not participation differed significantly when analyzed on the basis of a given characteristic. The comparison merely allows one to say that a characteristic has been found to be significant or not significant when related to member participation. It does not allow one to say that the significant difference in various studies cited are due to the same category or classified answers.

In most cases there is not exact comparability or agreement on the definition of the characteristic or the classification and analysis of the data. However, the author has made the decision in many cases that the characteristics, the classification and analysis, and the findings are comparable enough to be called in "general agreement."

In keeping with the objective stated above, an attempt will be made to determine whether or not past research findings cited in relation to specific hypotheses in this dissertation agree with the findings of this study. It is suggested that in general the findings from this study will agree with those of other cited participation studies.

For the sake of brevity the research cited has been classified into two broad categories. The cooperative research is that research whose major purpose was to study some aspect of farmer cooperatives including participation. All other research cited is termed noncooperative research and includes general participation studies as well as participation studies of specific organized groups such as labor unions and churches (Table 110).

Fifty-eight sub-hypotheses were tested in this dissertation. One or more research findings were cited in all except 18 cases. In 20 cases both cooperative and noncooperative research were cited in relation to each hypothesis. As many as 11 studies were cited in relation to some hypotheses. In 12 cases only findings from noncooperative research were cited.

Table 110. Number and kind of previous researches on 40 factors related to participation and their general agreement with the present study.

| Factors | Voluntary association research | | | | | Present findings agree with previous findings | | |
|--|--------------------------------|----------------|---------|----------------|-------------------------|---|-------------------|-------------------|
| | Noncooperative | Cooperative | | Noncoop. | | | | |
| | General | General | General | and coop. | Noncoop. | Noncoop. | Noncoop. | Coop. |
| | Number | agree- ment | Number | agree- ment | in general agreement | and coop. | only ^a | only ^a |
| Members and nonmembers | | | | | | | | |
| Age | 6 | Yes | 5 | Yes | Yes | Yes | - | - |
| Years farmed | 1 | - | 1 | - | Yes | Yes | - | - |
| General social participation | 1 | - | 4 | Yes | Yes | Yes | - | - |
| Socio-economic status | 5 | Yes | 1 | - | Yes | Yes | - | - |
| Educational level | 6 | Yes | 4 | Yes | Yes | No | - | - |
| Type of farming | 1 | - | 1 | - | Yes | No | - | - |
| Size of farm | 2 | No | 4 | Yes | - | - | - | No |
| Length of residence in community | 3 | Yes | 2 | No | - | - | No | - |
| Tenure status | 8 | No | 2 | No | - | - | - | - |
| Informal participation | 2 | Yes | 0 | - | - | - | Yes | - |
| Stage of family cycle | 3 | Yes | 0 | - | - | - | Yes | - |
| Family composition | 1 | - | 0 | - | - | - | b | - |
| Member participation | | | | | | | | |
| General participation | 3 | Yes | 5 | Yes | Yes | Yes | - | - |
| Joined for different reasons | 2 | Yes | 1 | Yes | Yes | Yes | - | - |
| Say or no say | 1 | - | 1 | - | Yes | Yes | - | - |
| Satisfaction | 2 | Yes | 4 | Yes | Yes | Yes | - | - |
| Educational level | 7 | Yes | 2 | Yes | Yes | No | - | - |
| Distance from cooperative | 2 | No | 1 | - | - | - | - | Yes |
| Length of residence in community | 5 | Yes | 3 | No | - | - | No | - |
| Criticisms | 1 | - | 3 | No | - | - | No | - |
| Tenure status | 7 | No | 2 | No | - | - | - | - |
| Age | 7 | Yes | 2 | Yes | No | - | No | Yes |
| Number of cooperatives to which member belongs | 1 | - | 1 | - | No | - | Yes | No |
| Socio-economic status | 7 | Yes | 0 | - | - | - | Yes | - |
| Responsibility | 1 | - | 0 | - | - | - | Yes | - |
| Identity with cooperative | 2 | Yes | 0 | - | - | - | Yes | - |

| | | | | | | | | |
|---|---|-----|---|-----|-----|-----|--------------|-----|
| Satisfaction | 2 | Yes | 4 | Yes | Yes | Yes | - | - |
| Educational level | 7 | Yes | 2 | Yes | Yes | No | - | - |
| Distance from cooperative | 2 | No | 1 | - | - | - | - | Yes |
| Length of residence in community | 5 | Yes | 3 | No | - | - | No | - |
| Criticisms | 1 | - | 3 | No | - | - | No | - |
| Tenure status | 7 | No | 2 | No | - | - | - | - |
| Age | 7 | Yes | 2 | Yes | No | - | No | Yes |
| Number of cooperatives to which member belongs | 1 | - | 1 | - | No | - | Yes | No |
| Socio-economic status | 7 | Yes | 0 | - | - | - | Yes | - |
| Responsibility | 1 | - | 0 | - | - | - | Yes | - |
| Identity with cooperative | 2 | Yes | 0 | - | - | - | Yes | - |
| Informal cooperative ventures | 4 | Yes | 0 | - | - | - | No | - |
| Urgency of need | 1 | - | 0 | - | - | - | No | - |
| Type of criticisms | 1 | - | 0 | - | - | - | No | - |
| Size of cooperative | 4 | Yes | 0 | - | - | - | No | - |
| Years a member of cooperative | 2 | No | 0 | - | - | - | - | - |
| Stage of family cycle | 4 | Yes | 0 | - | - | - | ^b | - |
| Years farmed | 0 | - | 1 | - | - | - | - | Yes |
| Membership in other farm organizations | 0 | - | 2 | Yes | - | - | - | Yes |
| Understanding of cooperative principles | 0 | - | 3 | Yes | - | - | - | Yes |
| Knowledge of facts | 0 | - | 6 | Yes | - | - | - | Yes |
| Source of current cooperative information | 0 | - | 4 | Yes | - | - | - | No |
| Reasons for joining related to greatest benefit | 0 | - | 1 | - | - | - | - | No |
| Type of cooperative | 0 | - | 2 | Yes | - | - | - | No |
| Size of farm | 0 | - | 2 | No | - | - | - | - |

^aThese columns were used only if there was general agreement within noncooperative or cooperative research or only one study was cited but there was disagreement between the two areas of research.

^bEvidence from the research cited was not accepted for Iowa farmer cooperatives for logical reasons.

Only cooperative research findings were cited in eight cases.

In all, members and nonmembers were analyzed on the basis of 13 characteristics (Table 111). In nine cases both cooperative and noncooperative research findings were cited and in three cases only noncooperative research was cited. In one case there was no research finding cited.

In the nine cases where both cooperative and noncooperative research findings were cited the findings of cooperative research did not agree in one case, the findings of noncooperative research did not agree in one case, and in one case the findings did not agree in either noncooperative or cooperative research. Of the six remaining characteristics on which there was general agreement the present research findings supported past findings in four cases and did not support them in two cases.

In the three cases where only noncooperative research findings were cited the data of the present study supported the findings in two cases and in the other case the evidence from the past research was not accepted for farmer cooperatives in Iowa for logical reasons.

Past research findings were cited in relation to 28 of the 45 hypotheses dealing with member participation in their cooperatives. Both cooperative and noncooperative research findings were cited in 11 cases. In two of the 11 cases findings from cooperative research did not agree, in one case findings from noncooperative research did not agree, and in

Table 111. Summary of agreement of present findings with past research findings.

| | Agree | Do not agree | Total |
|--|-------|--------------|-------|
| Members and nonmembers compared | | | |
| Hypotheses for which both cooperative and noncooperative research was cited | | | |
| Number of hypotheses on which there was general agreement that were supported by these data | 4 | | |
| Number of hypotheses on which there was general agreement that were not supported by these data | | 2 | |
| Number of hypotheses on which there was not general agreement in past research | | 3 | |
| Total | | | 9 |
| Hypotheses for which only noncooperative research findings were cited | | | |
| Number of hypotheses on which there was general agreement that were supported by these data | 2 | | |
| Number of hypotheses where evidence from noncooperative research was not accepted for cooperative hypotheses for logical reasons | | 1 | |
| Total | | | 3 |
| Member participation in cooperatives | | | |
| Hypotheses for which both cooperative and noncooperative findings were cited | | | |
| Number of hypotheses on which there was general agreement that were supported by these data | 4 | | |

Table 111. (Continued)

| | Agree | Do not agree | Total |
|--|-------|--------------|-------|
| Number of hypotheses on which there was general agreement that were not supported by these data | | 1 | |
| Number of hypotheses on which there was not general agreement in past research findings | | 6 | |
| Total | | | 11 |
| Hypotheses for which only noncooperative research was cited | | | |
| Number of hypotheses for which there was general agreement that were supported by these data | 3 | | |
| Number of hypotheses for which there was general agreement that were not supported by these data | | 4 | |
| Number of hypotheses for which there was not general agreement in past research | | 1 | |
| Number of hypotheses where evidence from noncooperative research was not accepted for cooperative hypotheses for logical reasons | | 1 | |
| Total | | | 9 |
| Hypotheses for which only cooperative research was cited | | | |
| Number of hypotheses on which there was general agreement that were supported by these data | 4 | | |
| Number of hypotheses on which there was general agreement that were not supported by these data | | 3 | |

Table 111. (Continued)

| | Agree | Do not agree | Total |
|--|-------|--------------|-----------|
| Number of hypotheses on which there was not general agreement in past research | | 1 | |
| Total | | | <u>8</u> |
| Grand total | 17 | 23 | 40 |
| Number of hypotheses for which no findings were cited | | | <u>18</u> |
| Total hypotheses | | | 58 |

one case findings from neither cooperative or noncooperative research agreed. In addition there were two cases in which there was general agreement within cooperative and noncooperative findings considered separately but the two areas of research were in disagreement on findings. Thus in only five of the 11 cases was there general agreement within and between cooperative and noncooperative research findings related to a specific hypothesis. In these five cases the present study supported past findings in four cases and did not support the past findings in one case.

In the two cases where the noncooperative and cooperative research findings did not agree the data from the present study supported past cooperative findings in one case and those of the noncooperative research in the other case.

Past research findings from only noncooperative research

were cited in relation to nine hypotheses. There was disagreement in the findings of past research in only one case. In another case the findings were not accepted for cooperative participation hypotheses for logical reasons. The seven hypotheses on which there was general agreement from past non-cooperative research and that were accepted for present testing were supported by the present data in three cases and were not supported in four cases.

Only cooperative research findings were cited in relation to eight of the hypotheses in the present dissertation. Of the eight there was disagreement between past research findings in only one case. Data from the present study supported past findings in four cases and did not support the past findings in three cases.

These findings may be summarized as follows: (1) Past research findings were cited in relation to 40 of the 58 hypotheses. (2) In 11 of the 40 cases past research findings were not in agreement on specific characteristics. (3) The present data support 17 of the 29 hypotheses on which there was general agreement in past research. (4) The present data did not support past research findings in ten cases. (5) In two cases, though there was general agreement on past research, the findings were not accepted for farmer cooperatives in Iowa for logical reasons. (6) In the eleven cases where there was not agreement in past research findings there were four cases where noncooperative findings did not agree, four cases where

cooperative findings did not agree. In one case there was not agreement within either cooperative or noncooperative findings and in two cases cooperative and noncooperative research did not agree.

The findings from Iowa data agreed with other research findings in 17 of the 29 cases where there was general agreement among past research findings.

This evidence is not at all conclusive. Actually the author expected a much higher rate of agreement than was found. The fact should be emphasized that in 11 cases past research findings were not in agreement and in two cases the past findings were not accepted for Iowa cooperatives on a logical basis. This brings to the fore some important research consideration. Are research methods comparable enough so that one might expect to find agreement on such findings? How significant is general participation research? Could more be added to the body of knowledge by doing a more complete analysis on functional classes and sub-types within these classes? Should more time be spent on designing logical constructs or models into which participation data might fit rather than continually counting participation without really setting up any logical framework in which participation can be explained or analyzed? Certainly consideration should be given to basic theorizing and conceptualization before additional research is done on continuing "survey" type research in the field of social participation.

DISCUSSION

The findings of this study have supported the proposition that people do participate in different degrees in farmer cooperatives. Selected factors were tested and many of them were found to be significantly associated with different degrees of participation. Just as important, is the fact that many factors that have been assumed to be significantly related to participation were found not to be significant. It is the author's opinion that using participation as the focal framework of research in farmer cooperatives may prove more fruitful than past frameworks of farm opinions and knowledge of facts about cooperatives.

The present study has many limitations. An attempt has been made to point out many of them at appropriate places throughout the dissertation. In addition there are other limitations that should be mentioned.

The data are relatively old. The field study was completed in 1948. Though much work has been done by and with farmer cooperatives since that time it is doubted if the findings would be significantly different if the analysis had been made on current data.

In some cases the findings are based on small numbers of cases in some cells. An attempt has been made to call these to the attention of the reader as they appeared in the dissertation. In some cases the data were not gathered for the

specific purpose for which they were used here. For instance, there was no thought of comparing participation rates in different cooperatives when the data were gathered or the sample would have been drawn on a different basis.

The lack of comparability of past research in general participation with the present study made comparisons difficult, in some instances impossible, and in many cases inconclusive.

This has been basically a new approach to research in member relations in farmer cooperatives. It should be regarded as exploratory and tentative and suggestive for future research.

On the assumption that additional research will be done using this general framework of participation the following questions and suggestions may be helpful to the future research worker.

One of the first considerations is the advisability of an interdisciplinary approach. Additional research will probably be most productive if it is undertaken on an interdisciplinary basis. Since the farmer cooperative, at least in Iowa, has as its major purpose economic ends it is imperative that those who understand the basic economic theory of cooperatives be involved. Since the cooperative is an association of farm firms represented by their entrepreneurs who engage in group activity the sociologists have a definite role to play in cooperative research. Social psychologists and specialists

in law and legal research might also make valuable contributions as members of a research team.

Consideration should be given to the possibility of developing a more logical framework or model that should theoretically account for participation in farmer cooperatives. As pointed out, the economists are developing an economic model that should account for optimum participation in the economic sense. The possibility of such a model involving both economic and non-economic values should also be given consideration.

The very important factor of rational optimum participation has also been introduced in this dissertation and, if possible, it should be integrated into any future study of participation. This factor is important from at least the three following points of view: (1) the educator, (2) the general welfare in the long run and (3) the sociologists as they strive to complete a scientific framework in which they can adequately study social participation. However, optimum rational participation may not be accepted by some leaders in cooperative activity. Their methods and actions lead one to suspect that they are more interested in participation per se than in optimum rational participation.

If participation is to be the focus of the study, additional consideration must be given to the development of a satisfactory tool for the measurement of participation. The present study has made progress in setting up the basic

elements or components of participation in farmer cooperatives. However, as pointed out in the section on the development of the participation score, the items used in measuring each element leave much to be desired. Possible additional items and approaches to measurement were suggested in relation to most of the elements. Additional work is needed in developing means of measurement. This is especially true on the following three elements: (1) sharing fixed and variable costs of operating the plant, (2) accepting responsibilities for risks and uncertainties, and (3) sharing economic benefits of the joint plant. A research team with competent members should be able to develop a more satisfactory score.

The improvement of the measurement of member understanding of basic cooperative theory and principles should also be given consideration. This is important from at least two points of view. In the first place, the highest correlation found was between understanding of basic theory and principles and participation. While the interrelationship of participation and understanding is recognized, the hypothesis is suggested that understanding leads to participation. Additional attention should be given to the construction of a device that would include more of the important elements of understanding. In addition, methods could be devised to get at the understanding of members in a more meaningful fashion. Setting up hypothetical situations with alternative possible choices for actions might be one improved method of getting at member

understanding of cooperative theory. The second major importance of basic understanding is discussed in the following paragraph.

If participation is to be studied in the framework of optimum rational participation a number of factors must be taken into consideration in future research. The first factor is probably that of determining if it is to the individual farm firm's best economic interest to participate in cooperative activity. This approach must be made from the point of view of the individual farm firm, its available resources and alternative uses of those resources to maximize profits. This is one facet of rational optimum participation that has had very little work done on it. A part of the data that is needed to make a rational decision whether or not it is in the best economic interest of the farm firm to associate with other firms is an understanding of a cooperative, its function, its operation, its potential, its limitations, and the member responsibilities that are implicit in associating together cooperatively. The entrepreneur must determine if other firms have needs comparable enough to those of his own firm so that they may associate together for the mutual benefit of all the firms. This involves the understanding of basic cooperative theory. A third factor in rational optimum participation in cooperatives must be the determination of the non-economic values that are attached to participation in farmer cooperatives. Participation for non-economic reasons

may be just as rational as participation for economic reasons. At least these three factors must be taken into consideration in any concept of optimum participation in farmer cooperatives.

Future research should give consideration to the choice of the population to be studied so that there are adequate number to make comparisons between communities and also between cooperatives. Since the cooperative association consists of the sum total of the multi-lateral agreements among the participating farm firms and these firms, through their entrepreneurs, must act as a group in relation to their coordinated activity, consideration needs to be given to studying and comparing the group activity of individual cooperatives to determine if certain forms of group structure and group processes are more conducive to participation than others.

The inadequacy of the means of measurement of many of the factors used in the present dissertation are recognized. Some of these inadequacies have already been pointed out. In addition, the following suggestions are made for future research. A more thorough job should be done on studying not only the type but the content, the methods and the degree of participation in what the cooperatives now call their educational programs. The same general suggestion is made in relation to the sources of current information about cooperatives listed by members. In the present study only names of sources were obtained. No attempt was made at content analysis of the information available from the sources or the

degree to which they were utilized or understood.

Talking to neighbors about cooperatives was one of the most highly significant factors related to cooperative participation. An attempt should be made to get at the background information available for such discussions, the content of such discussions and the conditions under which they take place.

In the present study many factors were treated as either positive or negative factors. This was true of such factors as: have a say, have no say; have "we feeling," have no "we feeling;" and have responsibility, have no responsibility. These factors could be quantified to a greater degree.

This brings to the fore the basic consideration that should be given to quantifying as much data as possible as a basis for more precise and meaningful classification and statistical analysis. Such improvements would not only increase the research value of future studies but might also decrease the expense.

SUMMARY

The American culture is noted for its many forms of formal voluntary associations. Sociologists have been actively engaged in studying this rather unique form of human togetherness in a framework that has been term^{ed} social participation research. With few exceptions such research has taken individuals or households as the focus of the study and has studied participation in all types of associations grouped together. This has been called general social participation research. The focus of this study is on participation in a single sub type of formal voluntary association, the farmer cooperative. A basic consideration was to determine how well generalizations from general participation research apply to a specific type of formal voluntary associations, farmer cooperatives.

Most past research in farmer cooperatives has dealt with two major areas of farmer opinions and attitudes toward cooperatives and of farmer knowledge of facts about cooperatives. Little detailed research has been done on what appeared to the author to be two important areas of cooperative research: (1) farmer participation in cooperative activity, and (2) farmer understanding of basic cooperative theory and principles. The latter point becomes very important to the educator who must see his role as one of helping people to obtain facts and understandings that lead to rational decisions regarding

participation or non-participation in farmer cooperatives.

The major purpose of this dissertation was to determine whether selected factors were related to different degrees of participation of people in farmer cooperatives. In addition, two minor objectives were: (1) to determine if generalizations from past general participation research would apply to a specific formal voluntary association, farmer cooperatives, and (2) to suggest and test hypotheses that might be useful for future research in the field of social participation.

In consultation with the Iowa State College Statistical Laboratory a sample of 22 Iowa communities was chosen and a total of 268 cooperative members and 278 nonmember schedules were taken from farmers living in these communities in 1948.

A review of past research in social participation did not reveal an acceptable device for the measurement of participation in farmer cooperatives. The unique nature of farmer cooperatives as economic associations was studied and eight major elements of cooperative participation were determined as follows: (1) use of plant or patronage, (2) decision making regarding the plant and its operations, (3) accepting financial responsibility, (4) sharing fixed and variable costs of operating the plant, (5) accepting responsibilities for risks and uncertainties, (6) sharing economic benefits from the plant, (7) participation to get facts and understanding, and (8) organizational maintenance duties. Using these ele-

ments as the framework a cooperative participation score composed of 12 items was constructed by the author and a panel of three judges.

An important part of past social participation research has been the comparison of those people who belong to some type of formal association with those who do not belong. Members and nonmembers of farmer cooperatives were first compared to determine if there were any significant differences between these two categories. Propositions were suggested that members and nonmembers would differ significantly when compared on the basis of the following factors: age, educational level, stage of family cycle, nationality background, number of years farmed, size of farm in acres, general social participation, participation in informal cooperative ventures, and socio-economic status. With the exception of the factor, educational level, the findings from the present study supported the propositions involving the above factors--members and nonmembers differed significantly when compared on the basis of these factors.

Propositions were suggested that members and nonmembers would not differ significantly when compared on the basis of the following factors: family composition, length of residence in the community, tenure status, and type of farming. With the exception of the factor, type of farming, the findings from the present study supported the propositions involving the factors listed directly above.

Propositions were suggested that cooperative participation scores of members would differ significantly when compared on the basis of the following factors: general social participation, membership in other farm organizations, socioeconomic status, member understanding of basic cooperative principles, member definition of the cooperative as an agent or just another place to do business, member feeling of responsibility, member opinion regarding 100 per cent participation, member feeling of say or no say in running the cooperative, member "we feeling" or identity with the cooperative, number of neighbors who belong to the cooperative, receiving or not receiving current information about the cooperative, more information desired about local cooperative, more information desired about cooperatives in general, knowledge of facts about the local cooperative, knowledge of the existence of wholesale or "regional" cooperatives, greatest benefit from cooperatives, criticisms or no criticisms of cooperatives, specific cooperative named most important by member, community in which member resided, and size of community. In all cases the present findings supported the propositions that participation scores of members would differ significantly when compared on the basis of these factors.

Propositions were suggested that participation scores of members would differ significantly when compared on the basis of the following factors: educational level, participation

in informal cooperative ventures, reasons for joining the cooperative, urgency of need at the time the member joined, stated responsibilities to cooperative, justification for not always patronizing the local cooperative, source of current information about cooperatives, type of criticisms named by members, type of cooperative, size of cooperative, and number of educational programs. However, the present findings did not support any of the suggested propositions involving the above factors.

Propositions were suggested that participation scores would not differ significantly when compared on the basis of the following factors: age, stage of family cycle, tenure status, number of years farmed, size of farm in acres, source of first information about cooperatives, number of cooperatives to which member belonged, number of years the member had belonged to the cooperative, type of educational program, and separate educational fund in cooperative. In all cases the propositions involving the factors listed above were supported by the findings of the present study.

A minor objective of this dissertation was to determine the degree to which research findings from other studies agreed with findings from the present study. Past research findings were cited in relation to 40 of the 58 hypotheses tested. In 11 of the 40 cases past research findings were not in agreement. The findings from the present study agreed with past research findings in 17 of the 29 cases where there

was agreement among the past findings. The present findings did not agree with past findings in ten cases and in two cases past research findings were not accepted for farmer cooperatives for logical reasons.

The findings from the present study have demonstrated that the framework of participation can be productive in cooperative research. As additional research is planned the following points should be considered: (1) the inter-disciplinary approach to the problem, (2) the improvement of the measurement of cooperative participation, (3) the improvement of the measurement of understanding of basic theory of cooperatives, (4) the incorporation of the concept of optimum rational participation in cooperatives into the research plan, (5) the choice of the population to be studied that will allow for (a) comparisons of cooperatives and communities and (b) the study of cooperative structure and process in individual cooperatives and their relation to participation, and (6) the further quantification of data to aid in statistical treatment.

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APPENDICES

Appendix A. Purpose, Locale, Population, Participation
Elements and Factors Used in Analysis of Major
Studies Cited

Anderson, C. Arnold and Ryan, Bryce. Social participation differences among tenure classes in a prosperous commercialized farming area. Rural Soc. 9: 281-290. 1943.

The purpose of this study might be stated as determining the differences, if any, in social participation by tenure classes in a prosperous commercialized farming area. The locale of the study was two communities in central Iowa. Schedules were obtained from 365 farm operators. Participation was measured by membership, meeting attendance, number of committee memberships and officerships held. The following factors were used in the analysis: tenure, age, income and mobility.

Anderson, W. A. Family social participation and social status self-rating. Amer. Soc. Rev. 11: 253-258. 1946.

The objective of this study was to determine if participation or non-participation may be an expression by the participators or non-participators of their own feeling of superiority or inferiority in the community. The data used consist of self-ratings of 344 farm families living in Ostego County, New York, time of study not stated. Participation was measured in terms of participation in community organizations,

participation in informal social activities and leadership in community affairs. Self-ratings were analyzed on the basis of the following factors: size of farm, land class, tenure status, number of years family had been established, socio-economic status, and formal participation.

Anderson, W. A. The membership of farmers in New York organizations. N. Y. (Ithaca) Agr. Exp. Sta. Bul. 695. 1938.

Purpose of this study was to determine the extent of farmer participation in organizations, the organizations to which they belonged and certain factors related to membership. The data were obtained from 2,925 farmers in four New York counties in 1934 and 1935. Participation was measured only in terms of membership in organizations but membership was analyzed on the basis of the following factors: tenure status, age, farming experience, size of farm, value of farm, mobility of farmers, type of road upon which person lived and education.

Anderson, W. A. Social participation and religious affiliation in rural areas. Rural Soc. 9: 242-250. 1944.

The purpose of this study was to determine what differences there were, if any, in social participation on the basis of different religious affiliations. Approximately 2,100 husbands and wives, about equally divided in numbers, were interviewed in Cortland and Ostego Counties, New York, in 1939

and 1940. No indication is given in the article of the basis used for choosing these areas or how the sample was chosen. The Chapin social participation score was used and participation was analyzed using the following factors: denomination, tenure, sex and land class.

Anderson, W. A. and Plambeck, Hans H. The social participation of farm families. N. Y. (Ithaca) Agr. Exp. Sta. Dept. Rural Soc. Mimeo. Bul. 8. 1943.

This study had two major purposes: (1) to determine the extent and form of social participation as an indication of the degree to which communities have become socialized, and (2) to determine the factors promoting organizational participation. The study included 807 families in Cortland and 398 families in Otsego County, both in New York. All families in the sample live on farms. Nothing is said about the basis for selecting the sample. Field work was accomplished in 1939-1940. Participation is discussed in terms of memberships, meeting attendance, contributions for support, committee memberships, program participation and office holding. In addition to treating each of these elements separately, the Chapin participation index was used. The following factors related to participation were used: size of family, composition of family, age of family, education, length of residence in the community, mobility, standard of living, distance to center and possession of such things as auto, telephone and radio.

Anderson, W. A. and Sanderson, Dwight. Membership relations in cooperative organizations. N. Y. (Ithaca) Agr. Exp. Sta. Dept. Rural Soc. Mimeo. Bul. 9. 1943.

This publication is a summary of three theses completed by M. E. John, Duane L. Gibson and Edwin J. Losey, all at Cornell University. In general, it could be stated the objectives of these studies were to determine the degree of participation, knowledge and the opinions and attitudes of New York farmers, the interrelation of these three factors and in addition to determine other factors that were associated with varying degrees of participation, knowledge and different opinions and attitudes. Information is not presented as to the exact number of farmers interviewed, where in New York state the studies were done or how the samples were chosen. Field work was done from 1935 to 1938. Participation was analyzed in terms of the following elements: membership, past membership and now dropped, attendance at meetings and promoting the organization. Some of these elements were analyzed on the basis of the following factors: age, education, tenure, size and type of farm, mobility, farm experience and membership in other organizations.

Anderson, W. A. and Smith, Harold E. Formal and informal participation in a New York village. N. Y. (Ithaca) Agr. Exp. Sta. Dept. Rural Soc. Mimeo Bul. 28. 1952.

The purpose of this study was to describe the relations of village families to organizations and informal activities and bring out participation principles governing behavior. The village studied was ". . . located in the central New York Finger Lakes region," and had a population of approximately 1,500. The data were gathered from 238 families by interview method, probably in 1946. Formal participation was measured in terms of memberships, holding an office or being a committee member and the Chapin social participation score. Informal participation was measured in terms of visiting, party attendance, sharing meals, card playing, picnicking and attending motion pictures. Participation was analyzed on the basis of the following factors: stage of family cycle, age, length of residence in community, education, occupation, employment of wife, socio-economic status and self-rating. In addition village participation was compared with open country participation results from other New York studies.

Bushee, Frederick A. Social organizations in a small city.
Amer. Jl. Soc. 51: 217-226. 1945.

The objectives of this study could probably be described as determining the extent of individual formal participation by functional class of organizations. The data were secured from the organizations themselves rather than from individuals in about 1943. The locale of the study was Boulder, Colorado, and some closely outlying districts with a total population

of approximately 12,000. Participation elements used were memberships, meeting attendance and holding of offices. Participation elements used were memberships, meeting attendance and holding of offices. Participation was analyzed on the basis of the following factors: functional class of organization, size of organizations, sex, type of program, occupation and type of family dwelling.

Duncan, Otis Dudley and Artis, Jay W. Social stratification in a Pennsylvania rural community. Penn. Agr. Exp. Sta. Bul. 543. 1951.

One of the major objectives of this study was to discover what relationship exists between stratification structure and social participation. A "typical" rural community in Pennsylvania with a total population of about 2,000 was studied in 1949. Formal, semiformal and informal social participation were scored. A total of 521 households schedules were taken. The formal participation index used was discussed in the section on methodology. Church membership and attendance were not considered in the participation scale, although church auxiliary organizations were. Participation was analyzed on the basis of the following factors: occupation, income, prestige rating, socio-economic status and education.

Goldhamer, Herbert. Some factors affecting participation in voluntary associations. Unpublished Ph.D. Thesis. Chicago, University of Chicago Library. 1942.

The purpose of this study was to determine the relationship between selected factors and participation in voluntary associations. A one-page questionnaire was distributed to approximately 5,500 Chicago working personnel representing factories, wholesale houses, retail establishments, business offices and a few from educational institutions and personnel on WPA. In addition supplementary materials were made available from a study of 1,000 engaged couples from a study of E. W. Burgess. Participation was measured in terms of number of associations to which people belonged, frequency of attendance at meetings, officerships, length of time a member and amount paid in dues and fees. Participation was analyzed on the basis of the following factors: sex, age, nativity, religion, education, marital status, residence status, length of residence, occupation, church attendance, social status, income and neuroticism.

Hay, Donald G. The social participation of households in selected rural communities of the Northeast. Rural Soc. 15: 141-148. 1950.

The purpose of this study was to determine the extent of social participation of households and the relationship of some factors to household participation in four selected rural communities. Three towns were in Maine and one community was in central New York. Data were obtained on 419 households in 1947. The method is not specified. Participation was measured

by the "Hay Scale," published in Rural Soc. 13: 285-294. 1948. Participation was analyzed on the basis of the following factors: occupation, socio-economic status, education and inter-community differences.

Hay, Donald G. Social participation of individuals in four rural communities of the northeast. Rural Soc. 16: 127-136. 1951.

The objective of this study was to determine the extent of social participation of individuals and some factors closely related to that participation. The data were collected in four communities, three in Maine and one in New York. Over 1,300 schedules were taken from individuals over ten years of age. The Chapin social participation scale was used for formal participation and an informal participation was also measured. Participation was analyzed on the basis of the following factors: husbands, homemakers, sons, daughters, socio-economic status, occupation, place of residence and occupation.

Henning, George F. and Poling, Earl B. Attitudes of farmers toward cooperative marketing. Ohio Agr. Exp. Sta. Bul. 606. 1939.

The objective of this study was to determine the attitudes of livestock producers toward cooperative livestock marketing. In consultation with leaders familiar with livestock marketing

and problems the authors chose five areas that were thought to be representative of livestock farmers in the state. No consistent systematic method of choosing the 325 farmers interviewed was used. The date of the field work was not given. Participation is studied from the point of view of membership, per cent of business done with cooperative and source of information. Participation was analyzed on the basis of the following factors: tenure, membership in other farm organizations and factors in general that influenced participation.

John, M. E. Factors influencing farmers' attitudes toward a cooperative marketing organization. Penn. Agr. Exp. Sta. Bul. 457. 1943.

The purpose of this study was to discover some of the forces influencing the attitude of farmers toward a cooperative marketing organization. Both general and specific attitudes were studied as well as their relation to each other. Attitudes and information scales were used. In 1938, 1,256 dairy farmers in ten Pennsylvania communities were interviewed. The sample was chosen to be representative of dairy farmers served by a cooperative milk marketing organization. Both members and nonmembers were interviewed. Participation was treated only incidentally as it related to member attitudes and information about cooperatives.

Kaufman, Harold F. Participation in organized activities in selected Kentucky localities. Kentucky Agr. Exp. Sta. Bul. 528. 1949.

The Kaufman study describes the extent of participation in all formally organized activities and selected factors associated with such participation in a sample of 2,832 Kentucky adults. The total sample was taken from nine sample groups, two of which were urban. Although the sample came from many different areas of the state, it is not claimed to be representative of the state. The field studies were done from 1940-1944. Membership and offices held were the measures of formal participation used in this study. Groups were categorized as religious and "other." Participation was analyzed on the basis of the following factors: locality, education, sex, farming practices, farm experience, length of residence in the community, economic status, occupation and age.

Kaufman, Harold F. Prestige classes in a New York rural community. N. Y. (Ithaca) Agr. Exp. Sta. Memoir 260. 1944.

The purpose of this study was to determine what important social characteristics distinguished the members of the various social classes, to what extent had social stratification progressed and how closely are class groupings related to

other social groupings and characteristics. The study deals with a population of 1,235 people located in a community in central New York. Approximately two-fifths of the total lived in the village center. The field study was completed in 1940-1941. Both formal and informal participation is described. Formal participation is described mostly in terms of membership, inactive members, officers and other active members. Participation was analyzed on the basis of the following factors: prestige ratings, place of residence, ethnic groups, age, sex and years lived in the community.

Korzan, Gerald E. Member attitude toward cooperatives. Ore. (Corvallis) Agr. Exp. Sta. Bul. 509. 1952.

This research dealt with member opinions about management, information programs, responsibility of members toward cooperatives in general. Although interviews were ". . . taken in all parts of the state," there was apparently no systematic basis for selection of the cooperatives. The 192 interviews were obtained from members of four types of cooperatives: purchasing, grain, dairy and fruit and vegetable. Members in four different cooperatives in each type were randomly selected and interviewed. No date of the field work is given, but it was probably completed around 1950. Participation was analyzed on the basis of the following factors: meeting attendance and sources of information.

Kyllonen, Toimi E. Social characteristics of active unionists.
Amer. Jl. of Soc. 56: 528-533. 1951.

The objective of this study was to determine the function that labor unions serve in the lives of their members. Interviews were taken from 183 out of 208 employees in the factory of a ". . .mid-Missouri industrial plant" in a town of approximately 2,000 in 1950. Both union members and nonunion members were interviewed. Elements of participation included membership and meeting attendance. Participation was analyzed on the basis of the following factors: wage rates, length of membership, production ratings, quality rating, family and kinship ties, age, informal participation, place of residence and general participation.

Lindstrom, D. E. Forces affecting participation of farm people in rural organization. Ill. Agr. Exp. Sta. Bul. 423. 1936.

In this study an attempt was made to determine what association there was between such factors as mobility, schooling, tenancy, trips made from home, and trading habits on the one hand and participation in social organizations, reasons for belonging to organizations and attitudes toward farmers' organizations on the other hand. A 50 per cent sample of 250 families living in four townships located in two counties in east-central Illinois constituted the sample studied. Two

townships were chosen to represent highly organized areas and two townships represented low organization areas. The field work was done in 1930. Formal participation was measured in terms of being a member, an officer, a committeeman, a board member, paying dues and devoting time to programs. Participation was analyzed on the basis of the following factors: land tenure, location, stability, education, trips away from home, attitudes toward organizations and occupation.

Losey, J. Edwin. Membership relations of a cooperative purchasing association. Unpublished Ph.D. Thesis. Ithaca, N. Y., Cornell University Library. 1940.

The purpose of this study was to determine the degree of association between personal, economic and social characteristics of farmers and their participation in, knowledge about and opinions of a specific cooperative. The cooperative was the Grange League Federation Exchange. Three hundred forty interviews were taken in six New York communities chosen as representative by the officials of the cooperative. Field work was probably done in 1938 or 1939. Participation was measured in terms of membership, attendance at meetings and regularity of patronage. Participation was analyzed on the basis of the following factors: age, education, farm experience, stability of residence, membership in other associations, size of farm, tenure status, type of farming and knowledge and opinions about cooperatives.

Mangus, A. R. and Cottam, Howard R. Levels of living, social participation and adjustment of Ohio farm people. Ohio Agr. Exp. Sta. Bul. 624. 1941.

In terms of social participation this research dealt with personal characteristics related to participation, the relationship of level of living to participation and the relationship of participation in group activities to adjustment of Ohio farm people. A random sample of 299 farm households located in the western agricultural area, urban industrial area and southeastern hill area of Ohio were chosen, and interviews taken in 1939-1940. Both formal and informal social participation were studied. The same items that appear in the Chapin scale were used, but were weighted differently, to measure formal participation. Participation was analyzed on the basis of the following factors: age, type of family, occupation, education, religious affiliation, intelligence ratings and various aspects of social adjustment.

McKay, A. V. Members knowledge and attitudes--calavo growers of California. U. S. Dept. Agr. Farm Credit Adm. Circular C 137. 1950.

Purpose of this study was to give insight into: (1) what factors encourage a member to become familiar with his cooperative organization, (2) how information can be best conveyed to members, and (3) what the relationship is between

member knowledge and attitude toward cooperatives. A random list of 107 members of the Calavo Growers of California were interviewed. Knowledge and attitude scores were developed and used. Participation in terms of attending meetings, talking about their cooperative and sources of information were analyzed on the basis of knowledge and attitudes about the cooperative.

Mayo, Selz C. and Marsh, C. Paul. Social participation in the rural community. Amer. Jl. Soc. 57: 243-248. 1951.

The purpose of this study was to determine the extent to which voluntary formal organization participation took place within and outside the locality group of residence. Two locality groups in Wake County, North Carolina, were studied in 1948. One was a village-centered locality group with high identity and the other an open country locality group with low identity. A total of 435 households were enumerated. The Chapin social participation scale was used. Such factors as locality, age, sex, farm and nonfarm residence and negro, white categories were used to analyze participation.

Rose, Arnold M. Union solidarity. Minneapolis, University Minnesota Press. 1952.

This study has for its main focus the studying of the reasons for union solidarity and what can be done to bring about solidarity. Three hundred ninety-two members out of

a total of over 8,000 members of a teamsters' local union in St. Louis were interviewed in 1949. Participation was measured in terms of attendance at meetings, speaking up at meetings, preference for attending meetings as compared to attending non-union functions, supporting negotiating committees, reading and understanding the contract and serving on picket lines. Participation was analyzed on the basis of the following characteristics: sex, age, educational level, religious preference and attitudes toward union, management and minority groups.

Stern, J. K. Membership problems in farmers' cooperative purchasing associations. Penn. Agr. Exp. Sta. Bul. 268. 1931.

The objectives of this study were to determine: (1) interest of farmers in cooperatives, (2) understanding of what cooperatives are, (3) the degree to which the members support cooperatives, (4) whether members are getting what they expected out of their cooperative, (5) how member and nonmember opinions differ on cooperatives, and (6) factors related to these attitudes toward cooperation. There were 192 members and 353 nonmembers in the trade area of six cooperative purchasing associations in the eastern half of Pennsylvania in the population interviewed. No systematic method was used to pick the interviewees but an attempt was made to get a fair sample of members and nonmembers in each community. Partici-

pation was measured in terms of talking about their cooperative and per cent of business done with the cooperative.

Stern, J. K. Membership problems in a milk marketing organization. Penn. Agr. Exp. Sta. Bul. 256. 1930.

The purpose of this study was to determine farmer attitudes toward cooperatives, actions in relation to cooperatives and factors related to attitudes and actions. The study included the western Pennsylvania territory of the Pittsburgh milk market where 902 members were interviewed. No date of the field study is given. "Schedules were taken at random but an effort was made to interview only those farmers who considered dairying their chief source of income." Data on participation were gathered in terms of sources of information about cooperatives and meeting attendance.

Stern, J. K. and Doran, H. F. Farmers' support of cooperatives. Penn. Agr. Exp. Sta. Bul. 505. 1948.

The purpose of this study was to determine factors related to: (1) attitudes toward cooperatives, (2) use of cooperatives, and (3) supporting cooperatives. In addition, an attempt was made to find out what farmers expect of their cooperatives. A representative sample of farmers in Pennsylvania were chosen on an area sample basis by the Statistical Laboratory of Iowa State College. Thirteen hundred fifty interviews were taken in 1946. Participation was studied in

terms of being a member, helping organize the cooperative, meeting attendance, holding office and voting on policy or delegate during the past year. Participation was analyzed on the basis of the following factors: type of cooperative, number of cooperatives to which member belongs, knowledge about cooperative and attitudes toward cooperative. This study is the most closely related to the present dissertation of any cooperative study reviewed.

Appendix B. Member Understanding of Cooperative
Principles Score

| Element scores | | |
|-------------------------|------------------------------------|--------------------------------|
| Within item score | Total possible item score | Total ele- ment score |

1. Control

Probably the best way to assure that a cooperative is run in the best interests of its patron members is to have it controlled by those patron members.

¹
A. Q. "Who should have the right to vote in a cooperative?"

| | | |
|--|-----------------------|----------|
| Answers: (1) one member one vote | <u>8</u> ² | |
| (2) on the basis of patronage | <u>8</u> ² | |
| (3) one vote per share of stock held (more stock more votes) | <u>0</u> | |
| (4) don't know | <u>0</u> | |
| | | <u>8</u> |

B. Q. "Who has the right to determine what should be done with 'savings' in your cooperative?"

| | | |
|------------------------|----------|----------|
| Answers: (1) directors | <u>2</u> | |
| (2) manager | <u>0</u> | |
| (3) members | <u>4</u> | |
| (4) don't know | <u>0</u> | |
| | | <u>4</u> |

C. Q. "Should all cooperative members vote on all important questions of policy? (should help determine major policy)"

¹"Q." stands for actual question asked.

²Score eight for either one, but for only one.

| Element scores | | |
|-------------------------|------------------------------------|--------------------------------|
| Within item score | Total possible item score | Total ele- ment score |

| | | |
|---|----------|----------|
| Answers: (1) yes | <u>5</u> | |
| (2) no | <u>0</u> | |
| (3) no, qualified in terms of this was board's job | <u>3</u> | |
| (4) don't know | <u>0</u> | |
| | | <u>5</u> |

D. Q. "What are your responsibilities as a member of your cooperative?"

| | | |
|---|-----------|----------|
| Answers: if voting and attending meetings were mentioned | <u>6</u> | |
| if said "No responsibility" | <u>-5</u> | |
| | | <u>6</u> |

Total

23

2. Savings

If a cooperative is operated for and in the interests of patron members then it follows that it would operate at cost and return the savings to the patrons on the basis of amount of patronage.

A. Q. "Should cooperative 'savings' be returned to patrons in the form of refunds on the basis of the amount of their purchases or to capital investors as increased interest on their capital?"

| | | |
|-------------------------------------|-----------|-----------|
| Answers: (1) patrons | <u>10</u> | |
| (2) capital investors on capital | <u>0</u> | |
| (3) both of above | <u>3</u> | |
| (4) don't know | <u>0</u> | |
| | | <u>10</u> |

B. Q. "Should cooperatives pay income taxes (on member business)?"

| | |
|------------------|----------|
| Answers: (1) yes | <u>0</u> |
| (2) no | <u>0</u> |
| (3) don't know | <u>0</u> |

| Element scores | | |
|-------------------------|------------------------------------|--------------------------------|
| Within item score | Total possible item score | Total ele- ment score |

If no, why

| | | |
|---|------------|-----------|
| Answers: (1) be paying twice on same income | <u>3</u> | |
| (2) they make no profits | <u>3-5</u> | |
| (3) farmers pay enough taxes | <u>0</u> | |
| (4) cooperatives still need help (gov't aid) | <u>2</u> | |
| | <u>5</u> | |
| Total | | <u>15</u> |

3. Finance

Economic logic dictates that those who are going to receive the savings, the patron members in the case of cooperatives, will have to become owners and assume entrepreneurial responsibility to finance the cooperative.

A. Q. "Who should finance cooperative at their start?"

| | | |
|---|----------|--|
| Answers: (1) members | <u>8</u> | |
| (2) government (bear responsibility) | <u>0</u> | |
| (3) banks (no member responsibility) | <u>0</u> | |
| (4) don't know | <u>0</u> | |
| | <u>8</u> | |

B. Q. "What are your responsibilities as a member of your cooperative?"

| | | |
|--|-----------|-----------|
| Answers: (1) if financing was men- tioned as a responsi- bility, score | <u>4</u> | |
| (2) if they said "No responsibility" | <u>-5</u> | |
| | <u>4</u> | |
| Total | | <u>12</u> |

| Element scores | | |
|-------------------------|------------------------------------|--------------------------------|
| Within item score | Total possible item score | Total ele- ment score |

4. Risks

Economic logic dictates that those who are going to receive the benefits must also bear the risks.

A. Q. "If a loss results because of selling at too low prices should the stockholders bear the loss or should it be made up on the basis of patronage?"

| | | | |
|---------------------------|------------|-----------|-----------|
| Answers: (1) stockholders | <u>0</u> | | |
| (2) patronage | <u>12</u> | | |
| (3) both | <u>2-5</u> | | |
| (4) don't know | <u>0</u> | | |
| | | <u>12</u> | |
| Total | | | <u>12</u> |

5. Patronage

When a member joins a cooperative he makes the decision to cooperate rather than compete with other farmers in this phase of farm enterprise--he agrees to act jointly with other farmers and conduct business through coop--he agrees to patronize.

A. Q. "Is it a 'moral' obligation for members to patronize their 'coop'?"

| | | |
|--------------------------------|----------|----------|
| Answers: (1) yes, 100 per cent | <u>8</u> | |
| (2) fairly consistently | <u>6</u> | |
| (3) no obligation at all | <u>0</u> | |
| (4) don't know | <u>0</u> | |
| | | <u>8</u> |

B. Q. "What are your responsibilities as a member of your cooperative?"

| | |
|---|----------|
| Answers: if they said that patron- izing was a responsibility, | <u>5</u> |
| score | |

| Element score | | |
|---|------------------------------------|--------------------------------|
| Within item score | Total possible item score | Total ele- ment score |
| if they said "give the cooperative the first chance" they should be scored | <u>1</u> | |
| if they said they have "no responsibility" score | <u>-5</u> | |
| | <u>5</u> | |
| Total | | <u>13</u> |
| Total possible under- standing of principles score | | <u>75</u> |

Appendix C. Member Knowledge of Facts About
Cooperative Score

| | | Item score | |
|----------|--|----------------|---------------------------|
| | | Within item | Total possible item |
| 1. | Q. "What is the salary of your local cooperative manager?" | | |
| Answers: | (1) they know | <u>5</u> | |
| | (2) they did not know--have no idea | <u>0</u> | |
| | (3) they said they know but are misinformed (\$500.00 either way score 3, \$501.00 to \$1,000.00 either way score 2) | <u>2-3</u> | |
| | | | <u>5</u> |
| 2. | Q. "Do you know that there are wholesale cooperatives?" | | |
| Answers: | (1) yes | <u>16</u> | |
| | (2) no | <u>0</u> | |
| | | | <u>16</u> |
| 3. | Q. "Who are the members of the board of directors of the cooperative?" | | |
| Answers: | (1) knew none | <u>0</u> | |
| | (2) knew 1 to 24 per cent | <u>7</u> | |
| | (3) knew 25 to 49 per cent | <u>12</u> | |
| | (4) knew 50 to 74 per cent | <u>17</u> | |
| | (5) knew 75 to 99 per cent | <u>20</u> | |
| | (6) knew 100 per cent | <u>21</u> | |
| | | | <u>21</u> |
| 4. | Q. "Does your cooperative have an educational fund?" | | |
| Answers: | (1) yes | Right <u>8</u> | |
| | (2) no | Wrong <u>0</u> | |
| | (3) don't know | <u>0</u> | |
| | | | <u>8</u> |

| Item score | |
|----------------|---------------------------|
| Within item | Total possible item |

5. Q. "Does your cooperative have a revolving fund?"

Answers: (1) Right answer
(2) Wrong answer
(3) don't know

| |
|----------|
| 25 |
| <u>0</u> |
| <u>0</u> |

25

Total knowledge of facts
about cooperative score

75

Appendix D. Member Satisfaction Score

| | | Item score | |
|--|--|-------------|---------------------|
| | | Within item | Total possible item |
| 1. | Q. "What is the greatest benefit you derive from your cooperative?" | | |
| Answers: (1) Those who felt they get a benefit | | 22 | |
| (a) dollar savings | | 2 | |
| (b) competitive influence | | 2 | |
| (c) control own affairs | | 2 | |
| (d) cooperative ideals | | 2 | |
| (2) Those who didn't know | | 10 | |
| (3) Those who felt they do not know | | 0 | |
| | | | 30 |
| 2. | Q. "Would competitors' services be as good if cooperatives were not in the market?" | | |
| Answers: (1) yes | | 0 | |
| (2) no | | 8 | |
| (3) don't know | | 3 | |
| | | | 8 |
| 3. | Q. "Would competitors' prices be as good if cooperatives were not in the market?" | | |
| Answers: (1) yes | | 0 | |
| (2) no | | 6 | |
| (3) don't know | | 2 | |
| | | | 6 |
| 4. | Q. "How do their (your cooperative's) costs compare with private enterprises of a similar nature?" | | |
| Answers: (1) higher | | 0 | |
| (2) same | | 3 | |
| (3) lower | | 6 | |
| (4) don't know | | 2 | |
| | | | 6 |
| 5. | Q. "Do you think the cooperative really saves you money?" | | |

| Item score | |
|----------------|---------------------------|
| Within item | Total possible item |

Answers: (1) yes
(2) no
(3) don't know

| |
|----------|
| 0 |
| <u>1</u> |

Q. "If yes, are you satisfied with the savings you have made in your cooperative?"

Answers: (1) yes
(2) no
(3) don't know

| |
|----------|
| 10 |
| <u>2</u> |
| <u>4</u> |
| 10 |

6. Q. "Are cooperatively produced goods as good____, better____, poorer____, quality as goods of name brands?"

Answers: (1) as good
(2) better
(3) poorer
(4) mixed--some good some better
(5) don't know

| |
|----------|
| 2 |
| <u>3</u> |
| <u>0</u> |
| <u>1</u> |
| <u>1</u> |
| 3 |

7. Q. "Do you believe you have a say____, have no say____, in running your cooperative?"

Answers: (1) have a say
(2) have no say
 (a) manager runs it
 (b) board runs it
 (c) small clique runs it
 (d) don't want any say
(3) don't know

| |
|----------|
| 12 |
| <u>0</u> |
| <u>6</u> |
| <u>2</u> |
| <u>8</u> |
| <u>4</u> |
| 12 |

Total satisfaction score 75